MONTHLY WEATHER REVIEW.

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CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT NO. 1, NORTH ATLANTIC STATES.

WILFORD M. WILSON, District Editor.

GENERAL SUMMARY.

The number of storm areas that passed over or near the district was unusually large, making the weather to a remarkable extent assume characteristics of early spring. Showers occurred over the northern portions with a frequency almost unknown in August, the skies were rarely free from clouds, and the average temperature was the lowest for August since 1903 or earlier. In some sections this was the coolest August on record. In New Jersey and the States south of Pennsylvania the low temperature was not associated with wet weather, as in the rest of the district, and, while in the northern States rainfall came so frequently and in such large amounts that unfavorable conditions resulted, there was such a deficiency in parts of New Jersey and Virginia that severe drought was experienced. The remarkable irregularity of the occurrence of precipitation may be seen from the statement that appreciable amounts of rainfall occurred on 22 days at Addison, N. Y., and on only 3 days at two stations in West Virginia.

The following table exhibits the leading features of meteorological interest over the various sections of the district:

States or parts of States within District No. 1.	Temperature.				Precipitation.				Average number of—	
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Rainy days.	Clear days.
New England	63.3	−2.5	92	29	4.03	+0.12	11.28	1.94	10	11
New York	65.0	−2.2	94	30	4.10	+ .11	8.98	2.04	12	11
Pennsylvania	67.4	−2.5	93	36	4.54	+ .47	9.65	1.68	13	10
New Jersey	70.0	−2.0	95	35	3.42	−1.30	7.62	1.19	10	12
Maryland, Delaware, and District of Columbia	72.3	−1.3	99	41	2.60	−1.86	6.26	1.02	9	13
West Virginia	67.8	−2.7	94	35	1.79	−2.13	4.43	.25	7	7
Virginia	72.5	−1.3	98	40	1.97	−2.17	4.54	.80	7	10

TEMPERATURE.

The average temperature for the month was 1° to 3° below normal at more than three-fourths of the stations in the district, but, owing to the peculiarities in the distribution of rainfall and sunshine, a few stations experienced temperatures that averaged above the August normal.

A period of cool weather that began about the 30th of July continued through the first nine days of August. This period was characterized mainly by cool nights and moderate day temperatures. The highest temperatures of the month with few exceptions came in a warm spell of about five days that broke up on the 15th. The temperature did not reach 90° at any of the stations in Maine and Vermont and at only a few stations in the other New England States or New York. From the 16th to the 26th the weather was quite changeable, with several alternating periods of temperature above and below the normal. The last four days of the month formed an exceptionally cool period. At several stations in central New York the mean temperature for the 31st was below 50°, and the day, with little doubt, may be called the coldest August day on record in that section. The highest temperature recorded in the district was 99° at Cambridge, Md., on the 19th, and the lowest was 29° at Norfolk, Mass., on the 31st. The mean temperatures ranged from 76.6° at Solomons, Md., to 57.3° at Morehouseville, N. Y.

PRECIPITATION.

In New England, New York, and Pennsylvania the precipitation was considerably above normal, but in the other States of the district there was a deficiency of 1 to 2 inches or more. The average rainfall was only 1.79 inches in West Virginia, while in Pennsylvania it was 4.54 inches. The distribution of the precipitation was remarkably uneven in all sections, and stations comparatively near each other received amounts differing by several inches. The greatest amount reported at any station was 11.28 inches, at Patten, Me., and the least was 0.25 inch, at Burlington, W. Va. Rainfall at excessive rates occurred at numerous stations in connection with the storm that passed over the district from the 9th to the 11th, and at a few stations on the 19th and 22d. Heavy rains with numerous instances of more than 1 inch in 24 hours occurred over extensive areas in the New England States on the 1st, and as far south as Pennsylvania and New Jersey in connection with the storms central over the district, on the 10th and 18th. On other dates the rainfall was generally light and irregularly distributed. In the southern States of the district the precipitation was almost wholly in the form of local showers and thunderstorms, none of the heavy general rains extending south of Pennsylvania. The total rainfall in Virginia, West Virginia, and he southwestern part of New Jersey averaged less than 2 inches, and these sections experienced drought during practically the entire month, the precipitation for June and July having been much less than the normal.

MISCELLANEOUS.

All the principal rivers remained at moderate stages throughout the month, but local inundations must have occurred as a result of heavy showers along many of the smaller streams. The average number of hours of sunshine for the month, according to the records of 12 repre-

sentative stations was 249, which is less than the average for any month since April. At Boston, New York, and Baltimore the total sunshine exceeded 300 hours, but at Binghamton it was only 164 hours. The percentage of the possible sunshine averaged 58, or less than the average for either June or July this year. The average number of clear days for the district was 11, partly cloudy days 14, and cloudy days 6.

THE AVALON TORNADO OF AUGUST 21, 1912.

By JAMES H. KIMBALL, Observer.

Information comes from the Avalon neighborhood in Northumberland County, Va., of a tornado that swept over that section between 3 and 4 p. m. of Wednesday, August 21, 1912. As seen from Avalon the storm first appeared to the north, thence passing east of the village and on toward the southeast. Eye witnesses state that it took the form and appearance of a funnel-shaped whirl of smoke, and as it moved along its northwest-southeast course, the pendant portion at times reached nearly to the ground and again lifted above the tops of the trees. The storm caused a roaring sound that was heard for miles around.

Investigation of the track of the disturbance indicates that damage was done to property along a strip of country one-fourth mile wide in places, but within the area of greatest destruction the path was much narrower. Trees and small buildings were blown down and two persons were injured by the tornado. The trees that fell on the north side of the path lie toward the south or southeast, while those on the south side fell toward the west.

The disturbance occurred during a period of hot, dry weather, and appears to have had some slight connection with an area of low pressure that passed across the eastern Canadian Provinces on the same day.

TABLE 1.—*Climatological data for August, 1912. District No. 1, North Atlantic States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Maine.																				
Bar Harbor	Hancock	20	26	61.4	− 3.1	82	13†	41	17†	30	3.93	+ 0.91	1.70	0	8	12	15	4	nw.	William Miller.
Cornish	York	778	57	64.4	− 1.8	89	13†	36	31	35	3.54	− 0.80	0.86	0	11	6	16	9	n.	T. H. West.
Eastport	Washington	53	40	58.8	− 0.9	74	25	45	31	22	3.76	+ 0.50	0.81	0	14	3	17	11	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	27	62.2	− 3.2	86	16	42	31	34	5.27	+ 2.22	1.55	0	7	7	9	15	.....	E. F. Parker.
Farmington	Franklin	450	15	60.3	− 4.4	83	14	38	18†	31	5.80	+ 2.30	1.22	0	19	3	14	14	nw.	State Normal School.
Gardiner	Kennebec	163	20	62.6	− 5.8	85	13†	38	31	32	2.99	− 0.45	1.15	0	14	19	3	9	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	8	58.5	.....	83	14	40	17†	27	5.38	+ 2.12	1.12	0	17	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	10	60.9	.....	85	19	35	31	30	8.40	+ 5.84	2.00	0	10	7	12	12	s.	Bangor & Aroostook R. R.
Lewiston	Androscoggin	185	38	63.6	− 3.5	86	25	44	31	28	2.96	− 0.30	0.78	0	11	9	11	11	nw.	Union Water Power Co.
Madison	Somerset	257	9	61.8	.....	85	15	40	18	33	6.96	+ 3.24	2.18	0	12	18	2	11	nw.	William Jardine.
Millinocket	Penobscot	386	9	61.8	.....	89	14	40	26	31	6.94	+ 3.81	1.26	0	16	14	5	12	nw.	H. S. Ferguson.
North Bridgton	Cumberland	450	19	64.2	− 3.0	88	13	43	17†	34	3.55	+ 0.27	0.90	0	10	8	17	6	se.	G. E. Chadbourne.
Orono	Penobscot	129	43	62.4	− 3.1	84	14†	36	31	39	4.69	+ 1.28	1.15	0	13	2	21	8	w.	Agricultural Exp. Station.
Patten	do.	550	10	59.0[e]	.....	80[e]	13	35[e]	26	35[e]	11.28	.....	2.00	0	7	15[e]	3[e]	10[e]	sw.	Bangor & Aroostook R. R.
Portland	Cumberland	99	41	62.8	− 3.4	88	25	47	31	28	2.26	− 1.31	0.63	0	13	10	10	11	s.	U. S. Weather Bureau.
Presque Isle	Aroostook		3																	S. L. Merriman.
Rumford Falls	Oxford	505	19	62.1	− 3.6	83	14	43	31	28	4.89	+ 1.81	1.07	0	14	15	7	9	nw.	Charles A. Mixer.
Winslow	Kennebec	90	17	63.4	− 2.3	87	14	41	31	34	4.80	+ 1.81	2.00	0	10	8	13	10	w.	Hollingsworth & Whitney Co.
New Hampshire.																				
Alstead Center	Cheshire	1,120	8	61.8	.....	80	13†	38	31	28	8.19	.....	3.21	0	12	17	6	8	sw.	Frank Dewing.
Benton	Grafton		3	59.4	.....	81	13	36	5	30	5.26	.....	1.65	0	10	6	10	15	nw.	State Sanatorium.
Bethlehem	do.	1,470	20	59.6	− 4.6	81	14	36	31	30	5.92	+ 2.00	1.19	0	16	12	13	6	sw.	Benjamin Tucker.
Concord	Merrimack	350	52	64.5	− 2.1	87	25	38	31	30	3.39	− 0.35	0.82	0	13	8	16	7	nw.	U. S. Weather Bureau.
Durham	Stafford	88	17	63.5	− 4.5	89	25	42	17†	32	2.95	− 0.13	0.73	0	7	15	7	9	se.	Agricultural Exp. Station.
Franklin	Merrimack	440	13	64.2	− 1.4	87	25	37	31	34	3.06	− 0.28	0.75	0	10	8	17	6	w.	Dr. C. P. Webster.
Grafton	Grafton	863	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. R. Kimball.
Hanover	do.	603	78	63.2	− 2.9	86	14	38	31	33	3.52	+ 0.13	0.94	0	13	6	14	11	sw.	Dartmouth College.
Keene	Cheshire	506	27	63.7	− 2.5	85	13†	33	31	36	4.10	− 0.08	1.03	0	11	10	18	3	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	27	67.1	− 1.5	90	25	39	31	31	2.34	− 1.54	0.70	0	7	.....	.....	.....	.....	Jackson Co.
Newton	Rockingham		24	64.8	− 2.2	87	25	37	31	34	2.51	− 0.64	0.75	0	7	7	22	2	sw.	W. C. Gale.
Plymouth	Grafton	500	24	62.0	− 3.7	83	13†	36	31	31	5.38	+ 0.87	2.19	0	10	16	1	14	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	5	59.8	.....	82	13†	36	31	33	5.16	.....	1.25	0	19	8	16	7	s.	Lyman Falls Power Co.
Cavendish	Windsor	910	9	62.8	.....	84	13†	36	30	37	3.62	.....	0.79	0	12	10	20	1	w.	E. D. Kingsbury.
Chelsea	Orange	840	17	60.8	− 3.1	83	14	33	31	34	3.84	+ 0.57	0.84	0	9	3	10	18	n.	W. F. Dewey.
Manchester	Bennington	980	13	61.9	.....	82	11	37	31	29	3.79	.....	0.94	0	9	2	22	7	sw.	N. M. Canfield.
Somerset	Windham	2,096	....	58.5	.....	80	11	31	31	35	4.18	.....	1.18	0	14	8	14	9	sw.	J. Albert Holmes.
St. Johnsbury	Caledonia	711	19	62.0	− 2.4	85	11†	39	31	36	4.80	+ 0.97	0.98	0	17	4	21	6	se.	Fairbanks Museum.
Woodstock	Windsor	700	20	60.8	− 4.5	83	14†	37	31	32	3.13	− 0.41	0.84	0	7	2	5	24	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agricultural Exp. Station.
Blue Hill	Norfolk	640	28	65.5	− 1.9	86	25	42	13†	25	3.05	− 1.02	0.96	0	11	10	15	6	nw.	Blue Hill Observatory.
Boston	Suffolk	124	42	69.0	+ 0.1	90	25	49	31	24	1.94	− 2.09	0.66	0	8	7	17	7	nw.	U. S. Weather Bureau.
Chestnut Hill	do.	124	32	67.8	− 1.8	89	13	45	31	28	2.24	− 2.04	0.53	0	8	26	0	5	.....	Met. Water Board.
Clinton	Worcester	370	16	65.2	.....	83	14†	43	30	31	3.63	.....	1.30	0	9	21	1	9	.....	Do.
Concord	Middlesex	139	22	65.0	− 2.3	88	25	36	31	30	3.37	− 0.28	0.87	0	8	6	17	8	s.	Fred A. Tower.
Fall River	Bristol	200	46	68.1	− 2.1	85	15	46	31	20	4.60	+ 0.47	1.10	0	9	4	23	4	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	29	66.2	− 2.1	88	25	43	31	29	2.86	− 1.94	1.28	0	5	14	3	14	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	32	67.6	− 1.2	88	13	40	31	30	2.92	− 1.15	0.88	0	7	.....	.....	.....	.....	Met. Water Board.
Hyannis[88]	Barnstable	31	21	67.4	− 3.9	83	15	48	30	25	5.45	+ 2.22	1.95	0	8	17	10	4	sw.	C. F. Sleeper.
Lawrence	Essex	51	28	66.7	− 2.9	88	25	43	31	28	2.66	− 1.36	0.57	0	8	6	23	2	sw.	Essex Co.
Lowell	Middlesex	100	27	68.2	− 1.2	88	25	42	31	28	2.23	− 2.03	0.61	0	6	.....	.....	.....	.....	Props. locks and canals.
Middleboro	Plymouth	53	26	64.4	− 3.1	86	15	35	31	32	3.09	− 0.55	1.01	0	8	2	19	10	sw.	A. R. Gurney.
Nantucket	Nantucket	15	26	67.0	− 1.0	82	27	53	3.	21	2.87	− 0.19	1.44	0	7	11	14	6	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	100	67.4	− 0.9	85	13†	44	31	26	7.35	+ 3.09	2.33	0	7	22	4	5	sw.	City Engineer.
Norfolk	Norfolk	244	9	63.0	.....	89	14	29	31	42	3.38	.....	0.85	0	7	19	8	4	w.	Ruby H. Martyn.
Plymouth	Plymouth	.....	27	65.3[b]	.....	82[b]	14	43[b]	31	31	3.78	.....	1.05	0	8	14	7	10	e.	Laura B. Knapp.
Provincetown	Barnstable	40	25	66.8	− 2.4	81	13	52	30	20	3.06	− 0.12	1.07	0	5	20	0	11	sw.	Gideon Bowley.
Rockport	Essex	25	10	64.6	.....	86	25	49	31	25	2.25	.....	0.70	0	6	13	10	8	nw.	C. F. P. Bearse.
Rutland	Worcester	1,160	10	64.2	.....	84	14	39	29	34	3.33	.....	1.55	0	8	16	11	4	sw.	State Sanatorium.
Turners Falls	Franklin	200	21	68.3	− 0.7	86	25	43	17	30	3.64	+ 0.54	1.10	0	10	.....	.....	.....	.....	Turners Falls Co.
Westboro	Worcester	298	38	68.7	− 1.0	89	13	40	31	34	2.89	− 1.24	0.80	0	7	.....	.....	.....	.....	G. S. Newcomb.
Williamstown	Berkshire	711	31	64.1	− 1.2	83	14	38	31	30	3.64	− 0.52	0.94	0	8	9	14	8	nw.	Williams College.
Worcester	Worcester	518	20	67.0	− 1.9	87	14	45	30	25	3.88	+ 0.46	1.22	0	10	12	11	8	nw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	32	67.0	− 1.7	81	15	51	31	16	3.18	− 0.30	0.90	0	8	11	12	8	sw.	U. S. Weather Bureau.
Bristol	Bristol	53	26	67.4	− 1.9	81	16	48	31	21	3.04	− 0.64	1.14	0	6	19	8	4	sw.	N. G. Herreshoff.
Kingston	Washington	250	23	65.2	− 3.4	87	15	40	31	27	4.62	+ 0.52	1.70	0	7	16	10	5	sw.	Nathaniel Helme.
Narragansett Pier	Newport	22	30	66.1	− 2.8	83	15	41	28	28	3.39	− 0.66	1.05	0	6	9	16	6	sw.	U. S. Weather Bureau.
Providence	Providence	182	8	67.8	− 3.2	87	12†	46	31	23	2.90	− 1.13	1.01	0	7	7	20	4	nw.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	19	69.6	.....	92	14	45	31	27	3.41	.....	1.79	0	6	8	17	6	sw.	William Jennings.
Canton	Hartford	900	51	66.6	− 1.2	87	13†	41	31	32	3.38	− 1.65	1.29	0	8	7	13	11	w.	G. J. Case.
Colchester	New London	370	26	65.2	− 3.9	85	12†	36	31	33	5.59	+ 1.23	2.66	0	7	8	14	9	.....	S. P. Willard.
Cream Hill	Litchfield	1,300	16	64.2	− 2.4	86	14	40	30†	34	4.26	− 0.31	1.28	0	16	14	10	7	w.	C. L. Gold.
Danielson	Windham	300	10	65.6	.....	86	25	38	31	32	3.81	.....	1.08	0	11	10	16	5	s.	F. E. Bitgood.
Hartford	Hartford	159	8	68.2	− 0.7	89	14	45	31	25	3.02	− 1.54	1.38	0	11	4	17	10	s.	U. S. Weather Bureau.
Hawleyville	Fairfield	600	14	66.2	− 2.2	87	14†	38	31	30	3.00	− 1.95	1.20	0	12	9	13	9	nw.	C. B. Hawley.
New Haven	New Haven	127	125	69.0	− 1.1	89	14	46	31	23	3.22	− 1.77	1.12	0	12	7	15	9	s.	U. S. Weather Bureau.
New London	New London	47	42	68.2	− 1.6	89	14	46	31	26	3.33	− 1.24	1.51	0	7	8	15	8	w.	Thos. C. Dillon.
North Grosvenor Dale	Windham	400	22	65.8	− 3.4	86	25	39	30	37	5.22	+ 1.65	1.18	0	8	12	15	4	sw.	Grosvenor Dale Co.
Norwalk	Fairfield	116	22	67.9	− 2.1	90	14	43	31	31	4.68	+ 0.97	2.35	0	6	18	11	2	sw.	George C. Comstock.
Southington	Hartford	140	43	66.2	− 2.9	87	14	37	31	33	2.80	− 1.75	1.00	0	7	5	25	1	w.	Luman Andrews.
Storrs	Tolland	640	24	69.4	− 1.8	87	13	50	4	25	5.49	+ 1.66	1.85	0	8	12	14	5	w.	Agr. Exp. Station
Torrington	Litchfield	625	11	65.8	.....	89	14†	35	31	38	3.45	.....	0.82	0	15	17	6	8	s.	Prof. E. H. Forbes.
Voluntown	New London	260	27	65.0	− 3.5	85	15†	32	31	37	2.94	− 1.43	1.05	0	7	13	13	5	sw.	J. L. Herbert.
Waterbury	New Haven	400	37	68.0	− 1.6	91	14	39	31	36	3.12	− 0.85	1.31	0	9	.....	.....	.....	.....	N. J. Welton.

TABLE 1.—*Climatological data for August, 1912. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Addison	Steuben	1,000	22	65.9	− 2.1	90	25	42	17	34	5.58	+ 2.31	0.84	0	22	7	14	10	sw.	Dr. H. R. Ainsworth.
Albany	Albany	97	91	68.0	− 1.5	88	25	43	31	26	3.00	− 0.96	0.84	0	11	9	19	3	s.	U. S. Weather Bureau.
Alfred	Allegany	1,976	17	61.0	− 4.5	83	25	38	16	32	5.16	+ 1.49	1.20	0	15	.....	.....	.....	.....	Prof. F. S. Place.
Amsterdam	Montgomery	277	8	64.8	.....	88	13	37	31	31	2.50	.....	0.77	0	13	16	6	9	w.	Emery Elwood.
Athens	Greene	90	10	67.4	− 1.2	88	13†	42	31	28	5.85	+ 1.75	1.61	0	15	6	20	5	sw.	E. C. Brooks.
Ballston Lake	Saratoga	400	8	64.7	.....	85	13†	36	31	33	3.86	.....	1.07	0	11	12	12	7	w.	George R. Schauber.
Bedford	Westchester	450	21	72.3	+ 2.1	94	15†	42	31	40	3.17	− 1.86	2.16	0	8	17	12	2	.....	Dr. L. Rosenberg.
Beerston	Delaware	1,214	0	62.4	.....	85	13	34	30	36	5.10	.....	1.06	0	14	12	18	9	w.	John Q. Barlow.
Binghamton	Broome	875	21	64.0	− 3.5	87	25	40	31	32	7.72	+ 4.37	1.92	0	19	0	11	20	w.	U. S. Weather Bureau.
Bouckville	Madison	1,350	15	62.0	− 3.2	83	13†	37	31	29	4.65	+ 1.08	0.82	0	15	2	14	15	sw.	L. W. Griswold.
Boyds Corners	Putnam	560	30	.....	.....	.....	.....	.....	.....	.....	5.02	+ 0.06	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Carmel	....do	500	20	67.1	− 2.5	88	26	44	31	33	4.90	− 0.39	2.41	0	11	17	6	8	nw.	Do.
Chatham	Columbia	470	11	66.4	− 0.9	87	13	38	30†	30	3.32	− 0.93	0.92	0	13	10	13	8	s.	Morton R. Tank.
Cooperstown	Otsego	1,250	58	62.2	− 3.2	82	14	36	31	30	6.09	+ 1.96	2.25	0	14	12	14	5	s.	Miss Elizabeth Keese.
Corinth	Saratoga	542	10	.....	.....	.....	.....	.....	.....	.....	2.91	.....	1.30	0	6	.....	.....	.....	.....	A. M. Hollister.
Cortland	Cortland	1,129	50	64.4	− 0.6	86	13	38	31	32	5.31	+ 1.51	1.58	0	18	7	18	6	s.	F. G. Baker.
Cutchogue	Suffolk	32	13	68.7	− 1.7	86	14	50	30	23	3.23	− 0.44	1.36	0	7	18	9	4	sw.	William A. Fleet.
De Ruyter	Madison	1,300	9	60.8	− 3.2	81	26	35	1	34	4.77	+ 1.17	1.15	0	14	5	7	19	s.	B. D. Crandall.
Elmira	Chemung	863	29	65.6	− 3.5	88	25	44	30	26	4.37	+ 1.13	0.93	0	16	5	10	16	ne.	Thurber A. Brown.
Ephratah	Fulton	692	0	.....	.....	.....	.....	.....	.....	.....	3.54	.....	1.60	0	13	7	14	10	w.	Victor Gennett.
Glens Falls	Warren	340	21	65.6	− 2.1	88	13	41	31	31	3.41	− 0.46	0.88	0	14	3	8	20	sw.	Prof. C. L. Williams.
Gloversville	Fulton	850	20	63.1	− 3.1	84	13†	35	31	31	3.68	− 0.37	1.20	0	12	8	18	5	w.	W. L. McLean.
Greenfield Center	Saratoga	314	14	63.6	− 3.6	87	13	37	31	30	3.42	− 0.75	1.05	0	10	11	16	4	nw.	S. E. Darrow.
Greenwich	Washington	425	15	66.8	− 0.9	88	14	40	30	35	3.03	− 0.64	0.70	0	9	17	12	2	se.	Homer J. Whitcomb.
Griffin Corners	Delaware	2,260	12	61.8	− 1.1	85	13	32	31	37	4.54	+ 0.52	1.20	0	12	17	5	9	w.	Harold O. Judd.
Haskinville	Steuben	.....	17	.....	.....	.....	.....	.....	.....	.....	4.05	+ 0.75	0.80	0	16	.....	.....	.....	.....	W. G. Collins.
Homer	Cortland	1,096	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Charles C. Mortimer.
Hoosick Falls	Rensselaer	410	10	.....	.....	.....	.....	.....	.....	.....	2.81	.....	0.80	0	11	.....	.....	.....	.....	Sanford L. Cluett.
Indian Lake	Hamilton	1,705	13	58.8	− 3.4	82	13	30	31	41	3.88	+ 0.41	1.02	0	11	9	9	13	w.	Lester Severie, jr.
Jeffersonville	Sullivan	1,240	9	63.6	.....	87	13	35	31	37	5.05	.....	1.91	0	12	17	11	3	w.	Charles Wilfert, jr.
Liberty	....do	2,300	30	61.4	− 3.3	82	14†	38	30	34	8.98	+ 4.69	2.55	0	14	12	4	15	nw.	Dr. H. M. King.
Little Falls	Herkimer	924	14	63.4	− 3.2	87	13	38	30†	36	2.04	− 1.69	0.63	0	9	14	14	3	w.	O. J. Dempster.
Mohonk Lake	Ulster	1,245	16	64.8	− 2.2	84	14	44	31	19	3.88	− 1.18	1.19	0	12	18	6	7	n.	A. K. Smiley.
Morehouseville	Hamilton	1,697	4	57.3	.....	78	11	31	30	33	3.13	.....	0.90	0	19	6	17	8	w.	Theo. C. Remonda.
Morrisville	Madison	1,325	0	.....	.....	.....	.....	39	17	.....	4.61	.....	1.30	0	12	11	5	15	nw.	Prof. I. M. Charlton.
Mount Hope	Westchester	200	15	69.4	− 0.6	88	13b	46	31	36	3.52	− 1.79	1.14	0	6	10	17	4	.....	W. A. Cornelius.
Newark Valley	Tioga	825	25	.....	.....	.....	.....	.....	.....	.....	5.89	+ 1.54	1.26	0	13	.....	.....	.....	.....	Lyman D. Clinton.
New Berlin	Chenango	1,090	5	.....	.....	.....	.....	.....	.....	.....	3.74	.....	1.96	0	9	.....	.....	.....	s.	Charles F. Sarle.
New Lisbon	Otsego	1,234	22	60.8	− 2.5	84	14	32	30†	38	4.95	+ 0.32	1.65	0	16	6	10	15	s.	G. A. Yates.
New York City	New York	314	87	70.7	− 1.5	89	26	53	31	19	2.77	− 1.76	1.17	0	12	4	20	7	nw.	U. S. Weather Bureau.
North Creek	Warren	1,002	4	61.4	.....	83	14	35	31	29	3.33	.....	0.82	0	10	6	13	12	nw.	W. G. Kenwell.
Northville	Fulton	742	10	.....	.....	.....	.....	.....	.....	.....	3.80	.....	1.50	0	8	.....	.....	.....	.....	P. C. Pickard.
Oneonta	Otsego	1,112	18	64.5	− 3.3	86	12	38	31	31	5.05	+ 0.13	2.40	0	12	7	9	15	sw.	H. W. Lee.
Oxford	Chenango	916	47	63.4	− 2.4	83	13†	39	30†	30	4.11	0.00	1.17	0	11	6	17	8	sw.	J. P. Davis.
Port Jervis	Orange	470	28	67.4	− 1.8	91	25	39	31	34	4.87	+ 0.45	1.61	0	17	8	19	4	nw.	W. H. Nearpass.
Roslyn	Nassau	215	0	70.1	.....	89	14	46	31	30	4.76	.....	1.67	0	10	23	5	3	w.	C. H. Hechler.
Salisbury	Herkimer	1,526	15	60.4	− 5.0	82	13	34	31	34	2.74	− 2.39	0.93	0	10	10	18	3	w.	Joseph Ryan.
Scarsdale	Westchester	200	8	68.3	.....	90	14	44	31	27	4.16	.....	2.30	0	8	22	3	6	sw.	C. H. Wilmarth.
Setauket	Suffolk	40	27	70.2	− 0.3	88	14	53	6	24	3.02	− 1.28	1.30	0	9	18	7	6	w.	Selah B. Strong.
Sherburne	Chenango	.....	5	.....	.....	.....	.....	.....	.....	.....	3.97	.....	0.73	0	12	.....	.....	.....	.....	E. B. Collins.
Southampton	Suffolk	36	11	68.0	− 1.1	84	15	46	31	24	2.93	− 0.99	1.64	0	8	19	10	2	sw.	W. L. Jagger.
Southeast Reservoir	Putnam	310	7	.....	.....	.....	.....	.....	.....	.....	4.23	− 0.96	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
South Edmeston	Otsego	1,300	0	62.0	.....	84	11†	35	30†	34	3.62	.....	1.08	0	14	13	7	11	s.	F. H. Bilderbeck.
Spier Falls	Saratoga	400	11	66.3	+ 0.3	88	25	38	31	30	2.90	− 0.06	0.93	0	9	5	18	8	s.	George E. Fifield.
Trenton Falls	Oneida	751	9	.....	.....	.....	.....	.....	.....	.....	4.21	.....	0.65	0	14	.....	.....	.....	.....	C. W. Young.
Tribeshill	Montgomery	268	9	.....	.....	.....	.....	.....	.....	.....	4.60	.....	1.10	0	6	.....	.....	.....	.....	R. S. Marshall.
Utica	Oneida	537	46	.....	.....	.....	.....	.....	.....	.....	2.78	− 0.86	0.85	0	11	.....	.....	.....	.....	W. E. Young.
Wading River	Suffolk	112	6	70.2	.....	92	14	49	6	30	2.56	.....	1.50	0	8	26	2	3	sw.	H. B. Fullerton.
Wappingers Falls	Dutchess	110	22	67.5	− 2.4	87	14	44	31	29	4.14	− 0.57	1.10	0	12	12	17	2	nw.	H. C. Townsend.
Warwick	Orange	538	18	.....	.....	.....	.....	.....	.....	.....	5.19	+ 0.85	1.92	0	12	18	5	8	.....	John W. Sly.
Waverly	Tioga	824	30	64.9	− 2.6	89	25	38	28	35	6.14	+ 2.71	1.84	0	15	0	14	17	nw.	J. F. Shoemaker.
West Berne	Albany	946	13	63.4	− 3.6	86	14	31	31	41	3.34	− 0.52	1.21	0	7	4	15	12	w.	W. J. Haverly.
West Point	Orange	167	63	69.6	− 2.6	90	15†	50	30	29	5.26	+ 0.42	1.50	0	6	21	6	4	w.	U. S. Military Academy.
Windham	Greene	1,520	12	63.0	− 1.4	84	26	35	31	33	4.48	+ 0.56	1.42	0	11	9	17	5	nw.	A. R. Mott.
Pennsylvania.																				
Altoona	Blair	1,181	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Billin.
Bethlehem	Northampton	260	11	71.2	− 1.2	93	26	50	28†	34	4.94	+ 0.59	1.85	0	11	22	4	5	sw.	Prof. E. C. Roest.
Drifton	Luzerne	1,633	14	64.7	− 2.1	86	25	41	30	30	8.42	+ 4.56	1.48	0	14	13	11	7	w.	Eckley B. Coxe, jr.
Emporium	Cameron	1,050	25	64.4	− 3.8	85	25	42	28	31	6.88	+ 3.15	1.74	0	16	3	20	8	w.	T. B. Lloyd.
Ephrata	Lancaster	384	12	68.5	− 3.3	89	18	46	30	27	2.91	− 1.72	0.74	0	13	20	5	6	w.	W. L. Frantz.
Everett	Bedford	1,080	14	66.6	− 2.9	88	18	44	28	38	2.45	− 2.33	0.63	0	10	10	16	5	w.	B. L. Steckman.
George School	Bucks	184	5	69.3	.....	90	26†	43	28	32	1.68	.....	0.40	0	14	12	12	7	w.	N. W. Swayne.
Gettysburg	Adams	600	38	69.8	− 1.6	91	18	45	28	32	2.27	− 1.45	0.65	0	11	9	18	4	sw.	Col. E. B. Cope.
Gordon	Schuylkill	804	8	66.6	.....	86	25	39	28	34	6.28	.....	2.03	0	18	10	14	7	w.	Capt. J. G. Johnson.
Hamburg	Berks	380	16	68.0	− 4.2	86	26	42	29	32	5.19	− 0.21	1.85	0	7	23	2	6	sw.	W. J. Kalbach.
Harrisburg	Dauphin	361	24	70.3	− 1.8	89	18	53	6	22	3.03	− 1.22	0.85	0	14	4	14	13	w.	U. S. Weather Bureau.
Huntingdon	Huntingdon	650	24	68.0	− 2.5	90	18	43	28	34	2.73	− 1.28	0.92	0	13	7	16	8	w.	Prof. W. J. Swigart.
Hyndman	Bedford	977	5	69.3	.....	90	18	40	5	36	3.47	.....	1.57	0	10	9	14	8	n.	H. Somers Fisher.
Lancaster	Lancaster	255	19	69.4	.....	90	18	45	28	30	3.62	.....	1.60	0	9	13	13	5	w.	F. H. Shaw.
Lawrenceville	Tioga	1,006	14	65.0	− 2.6	88	25	40	28†	30	5.65	+ 2.24	1.20	0	15	7	10	14	.....	C. P. Darling.
Lebanon	Lebanon	458	25	69.0	− 2.8	88	25†	47	28†	32	2.12	− 2.57	0.57	0	12	23	6	2	nw.	Harry M. Schott.
Le Roy	Bradford	1,400	23	64.0	− 3.8	84	25	44	28†	24	6.27	+ 2.19	3.00	0	20	3	13	15	sw.	G. W. T. Warburton.
Lock Haven	Clinton	560	24	68.0	− 3.0	91	25	42	28	36	5.11	+ 0.83	1.66	0	18	1	24	6	w.	Prof. J. A. Robb.
Marion	Franklin	640	8	70.2	.....	93	18	44	5	36	3.14	.....	0.84	0	9	15	16	0	.....	Hon. C. B. Hege.
Mauch Chunk	Carbon	634	23	67.0	− 3.3	90	25	42	31	34	6.13	+ 1.40	1.67	0	14	13	11	7	s.	F. C. Wintermute.
Mifflintown	Juniata	445	8	68.4	.....	89	25	44	5	31	3.49	.....	1.60	0	14	8	6	17	w.	Wellington Smith.
Milford	Pike	455	9	65.0	.....	90	25	37	31	37	5.87	.....	2.03	0	16	11	16	4	nw.	Mrs. Alla Doughty.
Montrose	Susquehanna	1,658	8	62.6	.....	83	25†	40	28†	30	5.62	.....	2.00	0	16	11	10	10	s.	Silas Jagger.
New Germantown	Perry	873	8	67.0b	.....	88	25†	38	28	30	3.15	.....	1.60	0	7	11b	3b	15b	w.	Ed. C. Johnston.
Philadelphia (1)	Philadelphia	117	41	73.0	− 0.8	90	13	55	31	22	1.71	− 2.90	1.24	0	10	6	19	6	nw.	U. S. Weather Bureau.
Pocono Lake	Monroe	1,662	10	61.8	− 1.8	83	26	36	6†	36	6.73	+ 2.61	1.47	0	14	7	6	18	w.	Pocono Lake Ice Co.
Reading	Berks	280	39	70.2	− 2.5	91	18	48	28	26	4.33	− 0.15	1.93	0	13	4	18	9	nw.	Emil L. Nuebling.
Scranton	Lackawanna	805	12	66.6	− 2.7	86	13	45	31	29	4.91	+ 0.66	1.80	0	14	5	13	13	s.	U. S. Weather Bureau.
Selinsgrove	Snyder	455	24	67.8	− 3.7	87	18†	44	28	46	4.78	+ 0.23	1.12	0	11	0	23	8	nw.	J. M. Boyer, C. E.

TABLE 1.—*Climatological data for* ***August, 1912.*** *District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Pennsylvania*—Contd.**																				
State College	Center	1,191	24	65.9	— 2.8	86	19	44	29	35	3.92	— 0.05	0.62	0	15	....	....	....	w.	Prof. Wm. Frear.
Towanda	Bradford	754	17	64.6	— 3.9	87	25	41	28	32	4.12	+ 0.52	0.99	0	16	9	8	14	s.	Hiram E. Bull, C. E.
Wellsboro	Tioga	1,327	35	64.6	— 1.0	88	25	39	28†	37	4.53	+ 1.03	1.17	0	19	14	14	3	w.	O. L. White.
West Chester	Chester	455	38	70.9	— 1.0	89	13	50	28	23	4.73	+ 0.20	2.20	0	13	9	17	5	w.	J. C. Green, D. D. S.
Williamsport	Lycoming	530	22	68.2	— 2.0	86	19	47	28†	35	9.65	+ 5.59	3.70	0	15	18	1	12	nw.	Henry H. Guise.
New Jersey.																				
Atlantic City	Atlantic	16	39	71.6	— 1.0	90	14	53	28	22	3.21	— 1.09	1.96	0	8	7	16	8	s.	U. S. Weather Bureau.
Bayonne	Hudson	50	22	70.9	— 2.9	92	26	50	30†	24	3.52	— 1.59	1.03	0	14	11	11	9	s.	Erskine R. Eadie.
Belvidere	Warren	289	22	68.4	— 2.4	88	14†	43	31	31	5.50	+ 0.54	2.15	0	11	21	2	8	.....	Samuel J. Hixson.
Bergen Point	Hudson	37	15	70.6	— 1.1	92	26	50	31	27	3.72	— 1.34	0.82	0	9	2	28	1	sw.	Wm. H. Mitchell, M. D.
Boonton	Morris	230	22	....	....	....	....	....	....	....	6.31	+ 0.92	1.45	0	14	....	....	....	sw.	Foster Peer.
Bridgeton	Cumberland	30	31	73.2	— 1.9	95	13	47	28	29	1.28	— 3.46	1.10	0	4	12	16	3	w.	Henry A. Jorden.
Burlington	Burlington	12	26	....	....	....	....	....	....	....	3.06	— 2.55	1.50	0	12	15	15	1	w.	D. S. B. McCoy.
Cape May City	Cape May	17	34	72.4	— 1.0	90	14	53	31	22	1.93	— 2.33	0.84	0	9	5	24	2	s.	U. S. Weather Bureau.
Charlotteburg	Passaic	719	20	66.7	— 1.0	90a	25	36	31	36a	7.62	+2.87	3.36	0	9	....	....	....	.....	George S. Briggs.
Chatham	Morris	234	10	....	....	....	....	....	....	....	4.30	— 0.92	1.05	0	11	....	....	....	nw.	M. A. Butler.
Clayton	Gloucester	126	19	70.7	— 2.8	90	13	47	28	27	1.99	— 3.16	0.47	0	8	....	....	....	w.	William T. Farley.
Culvers Lake	Sussex	848	11	....	....	....	....	....	....	....	5.62	+ 1.09	2.00	0	14	16	6	9	nw.	Brice E. Riker.
Dover	Morris	600	28	66.4	— 2.8	87	14	40a	31	30a	5.94	+ 0.94	3.04	0	11	1	20	10	.....	William C. Harris.
Elizabeth	Union	45	33	69.8c	— 3.7	92e	26	44c	31	30c	2.70	— 1.84	1.00	0	11	17	9	5	w.	L. B. Bonnett.
Flemington	Hunterdon	140	24	69.6	— 2.2	90	26	44	31	30	5.23	+ 0.82	1.42	0	16	20	8	3	sw.	Hiram E. Deats.
Haddonfield	Camden	75	25	69.9	— 3.0	90	13	48	28	27	2.35	— 2.24	1.04	0	9	9	19	3	nw.	Charles F. Richardson.
Hammonton	Atlantic	103	14	....	....	....	....	....	....	....	1.72	— 2.96	0.71	0	7	....	....	....	.....	Orville Bassett.
Hightstown	Mercer	119	20	70.6	— 1.3	94	13	42	31	33	3.11	— 1.66	1.23	0	12	10	15	6	sw.	Ernst Wenger.
Highwood	Bergen	90	25	67.9	— 3.3	90	13†	40	31	32	2.82	— 2.25	1.77	0	10	6	17	8	sw.	Charles J. Bates.
Imlaystown	Monmouth	107	24	71.2	— 1.9	95	14	43	31	30	2.59	— 2.27	1.20	0	11	18	12	1	sw.	Dr. Fred C. Price.
Indian Mills	Burlington	76	23	70.2	— 2.9	94	13	43	30	36	3.63	— 1.54	0.90	0	8	12	15	4	sw.	James Armstrong.
Jersey City	Hudson	10	14	72.4	— 0.9	92	26	51	31	24	2.89	— 1.76	1.24	0	9	10	14	7	nw.	Samuel K. Pearson, jr.
Lakewood	Ocean	54	10	....	....	89m	26	48m	28†	2m	1.90	....	....	0	....	....	....	....	.....	Ralph Robertson.
Lambertville	Hunterdon	95	25	70.3	— 2.1	90	26	45	31	27	3.00	— 1.76	0.60	0	12	18	9	4	sw.	William R. Bowne.
Layton	Sussex	550	13	65.8a	— 2.6	90a	14	35a	31	37a	4.13	+ 0.49	1.35	0	11	21	5	5	sw.	Warren C. Hursh.
Little Falls	Passaic	175	10	....	....	....	....	....	....	....	3.90	— 1.21	1.45	0	10	....	....	....	w.	A. Sweetman.
Long Branch	Monmouth	30	5	70.1	.....	94	14	48	28†	29	3.04	.....	1.46	0	6	19	11	1	se.	William D. Martin, Jr.
Mahwah	Bergen	312	10	....	....	....	....	....	....	....	5.42	+ 0.78	2.04	0	12	....	....	....	.....	Charles L. Barker.
Moorestown	Burlington	75	50	69.9	— 2.6	89	13	46	28	27	4.34	— 0.40	1.20	0	9	12	14	5	se.	George L. Gillingham.
Newark	Essex	159	69	72.3	— 0.3	93	13	53	30	26	3.30	— 1.94	1.37	0	13	12	11	8	sw.	Prof. William Wiener.
New Brunswich	Middlesex	100	59	69.8a	— 2.6	92	14	45b	31	36b	3.46	— 1.63	0.65	0	12	11	9	11	nw.	George B. Thrasher.
Newton	Sussex	678	33	68.0	— 1.8	89	14	42	31	30	5.55	+ 1.14	1.07	0	14	9	5	17	sw.	F. Vernon Losee.
Northfield	Atlantic	25	5	....	....	....	....	....	....	....	2.48	.....	2.08	0	5	7	16	8	.....	William L. Flick.
Paterson	Passaic	80	41	71.2	— 0.8	93	14	47	31	28	4.61	— 0.52	1.77	0	12	4	23	4	nw.	Heber A. Probert.
Phillipsburg	Warren	303	22	69.0	— 2.7	89	26	45	31	30	4.43	— 0.27	1.03	0	15	18	9	4	sw.	D. W. Smith.
Plainfield	Union	100	26	69.9	— 2.2	91	26	46	28†	30	4.09	— 0.78	1.35	0	16	7	16	8	sw.	John Neagle.
Pleasantville	Atlantic	26	14	....	....	....	....	....	....	....	2.88	— 1.81	1.56	0	6	7	16	8	.....	Lincoln Van Gilder.
Pompton Plains	Morris	195	10	....	....	....	....	....	....	....	5.68	+ 0.60	1.97	0	10	....	....	....	n.	M. S. Taylor.
Somerville	Somerset	60	29	69.7	— 2.2	91	26	43	31	33	3.31	— 1.40	0.75	0	13	14	12	5	nw.	A. A. Macdonald.
South Orange	Essex	200	42	69.2	— 1.5	93	19	46	31	31	1.90	— 3.49	0.69	0	7	3	23	5	.....	Dr. Wm. J. Chandler.
Sussex	Sussex	442	22	67.0a	— 2.6	90	14	40b	31	34b	4.24	— 0.08	1.28	0	12	10	12	9	nw.	George Dymock.
Trenton	Mercer	63	41	72.0	— 1.7	94	13†	46	31	30	1.71	— 3.84	0.44	0	9	13	9	9	sw.	James L. Bennett.
Tuckerton	Ocean	23	19	70.4	— 1.8	91	13	44a	28	30a	2.55	— 3.23	1.03	0	7	8	20	3	sw.	Frank R. Austin.
Vineland	Cumberland	118	43	72.6	— 1.0	94	13	48	30	29	1.19	— 3.78	0.84	0	4	16	13	2	w.	Alfred Chalmers.
Woodbine	Cape May	43	21	71.8a	— 0.4	91a	13	46a	28	31a	2.94	— 1.36	2.45	0	6	....	....	....	.....	Prof. O. E. Williams.
West Virginia.																				
Bayard	Grant	2,500	10	63.8	— 2.1	82	18†	35	5	33	4.43	+ 0.23	1.07	0	17	4	18	9	w.	Solomon Clark.
Burlington	Mineral	875	17	66.6	— 4.7	92	25	41	5	47	0.25	— 3.41	0.10	0	3	3	28	0	w.	J. W. Vandiver.
Franklin	Pendleton	....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	Fred Calhoun.
Lost City	Hardy	....	5	66.6	.....	84	26	42	5	30	1.49	.....	0.72	0	6	13	17	1	w.	B. D. Hinegardner.
Martinsburg	Berkeley	435	21	71.8	— 1.2	94	14	47	5	33	2.10	— 1.69	0.77	0	6	16	12	3	nw.	G. W. Van Metre, C. E.
Moorefield	Hardy	900	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	John C. Fisher.
Romney	Hampshire	824	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	John C. Linthicum.
Upper Tract [a]	Pendleton	1,230	14	68.6	— 2.8	89	31	40	4†	37	0.68	— 3.65	0.60	0	3	0	25	5	w.	J. M. Mallow.
Maryland.																				
Annapolis	Anne Arundel	45	40	75.8	— 0.8	94	20	56	5†	25	1.02	— 3.85	0.46	0	4	12	0	19	s.	U. S. Naval Academy.
Baltimore	Baltimore	115	42	74.4	— 0.3	92	18	57	5	21	3.25	— 0.96	1.29	0	10	9	12	10	sw.	U. S. Weather Bureau
Cambridge	Dorchester	24	14	75.4	— 0.9	99	19	55	28	30	2.31	— 2.23	1.25	0	3	10	18	3	nw.	T. E. Keenan.
Cheltenham	Prince Georges	230	12	72.4	— 1.1	93	19	50	5†	31	1.41	— 3.40	0.42	0	9	19	9	3	nw.	Geo. Hartnell.
Chestertown	Kent	80	27	73.0	— 0.6	91	13	52	28	25	1.87	— 2.87	1.13	0	6	16	15	0	sw.	M. W. Thomas.
Chewsville	Washington	530	15	69.8	— 2.4	90	18†	43	5	33	3.35	— 0.48	1.11	0	12	7	24	0	nw.	D. Paul Oswald.
Clear Spring	....do	650	15	68.7e	— 2.9	89e	19	49	5†	27e	4.60	+ 0.07	1.04	0	14	14	17	0	w.	W. W. Frantz.
Coleman	Kent	80	14	73.8	— 0.4	94	13	54	6	34	2.39	— 1.77	0.96	0	8	18	11	2	sw.	J. S. Harris.
College Park	Prince Georges	170	22	72.0	— 1.4	94	19	46	5†	40	1.15	— 2.93	0.41	0	9	16	14	1	s.	Prof. H. J. Patterson.
Cumberland	Allegany	623	38	71.8	.....	93	18†	46	5	34	1.35	— 1.94	0.39	0	7	8	14	9	w.	F. E. Harrington.
Darlington	Harford	300	20	70.2	— 2.3	89	18	48	28	29	2.88	— 1.74	1.01	0	9	12	16	3	sw.	Prof. A. F. Galbrea
Denton	Caroline	42	17	72.5	— 1.1	94	19	45	28	31	1.80	— 1.76	1.11	0	6	26	5	0	sw.	H. B. Mason.
Easton	Talbott	35	21	72.8	— 1.5	91	13†	52	28	24	1.86	— 2.40	0.95	0	7	15	11	5	sw.	Henry Shreve.
Fallston	Harford	450	42	70.4	— 1.6	88	19	49	28	27	2.81	— 2.03	0.65	0	11	0	29	2	sw.	J. H. Curtiss.
Frederick	Frederick	275	35	72.1	— 1.5	92	18†	47	5	32	3.32	+ 0.05	0.96	0	14	15	3	13	sw.	Chas. S. Birely.
Frostburg	Allegany	1,929	11	67.4	.....	88	18	39	5	35	2.43	.....	0.69	0	12	4	27	0	nw.	R. A. Walter.
Great Falls	Montgomery	200	21	72.9	— 1.2	93	18	49	4	34	1.14	— 2.33	0.43	0	7	12	5	14	se.	Charles E. Sullivan.
Green Spring Furnace	Washington	450	20	70.2	— 3.4	91	18†	48	28	33	2.76	— 1.52	0.67	0	11	14	16	1	nw.	E. G. Kinsell.
Keedysville	....do	400	8	70.6	.....	92	18†	45	5	31	4.44	.....	1.10	0	12	16	13	2	nw.	J. A. Miller.
Lake Montebello	Baltimore	200	3	72.3	.....	91	18	52	28	27	4.47	.....	1.72	0	7	19	6	6	nw.	Martin L. Dobler.
Laurel	Prince Georges	150	18	71.2	— 2.8	92	19	47	28	31	2.58	— 1.98	1.50	0	7	6	25	0	.....	Dr. T. M. Baldwin.
Leonardtown	St. Marys	100	2	73.8	.....	94	19	50	1	30	2.12	.....	0.82	0	6	13	14	4	s.	Brother Fidelis.
Monrovia	Frederick	630	25	70.6	— 2.7	92	18	46	5	30	3.49	— 1.09	0.79	0	11	14	8	9	s.	J. H. Lawson.
Pocomoke City	Worcester	37	19	74.8a	— 1.2	93a	19	55a	27	23a	4.21	+ 0.22	1.71	0	8	19a	4a	7a	s.	Hon. R. M. Stevenson.
Porto Bello	St. Marys	38	7	72.6	.....	93	13†	48	5	38	....	....	....	....	....	7	12	12	se.	Mrs. Clara C. Hyatt.
Princess Anne	Somerset	17	19	72.4	— 1.3	92	19	52	6†	27	3.63	— 1.42	1.26	0	11	3	17	11	sw.	J. R. Stewart.
Rockville	Montgomery	421	5	70.7e	.....	89e	18†	52e	5	21e	1.70	.....	0.35	0	11	16e	6e	4e	.....	Dr. G. E. Lewis.
Salisbury	Wicomico	23	7	74.6	.....	95	13†	53	7†	31	3.09	.....	2.00	0	7	14	17	0	sw.	W. E. Downing.
Solomons	Calvert	20	21	76.6	— 0.6	94	13†	58	5	24	1.54	— 2.68	0.81	0	7	0	9	22	s.	Dr. W. H. Marsh.

TABLE 1.—*Climatological data for August, 1912. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Maryland*—Continued.**																				
State Sanatorium	Frederick	1,460	4	68.1	.....	88	18	41	28	30	6.26	.....	1.95	0	9	7	18	6	se.	Superintendent.
Sudlersville	Queen Anne	65	13	72.8	− 0.9	95	13	47	28	33	1.67	− 1.65	1.38	0	5	9	19	3	sw.	Henry L. Higman.
Takoma Park	Montgomery	320	14	72.0	− 1.2	90	19	52	5†	29	1.31	− 3.92	0.40	0	7	0	31	0	.....	L. M. Mooers.
Taneytown	Carroll	465	4	71.4	− 2.1	93	19	46	5†	33	3.52	− 0.50	0.86	0	15	15	14	2	sw.	Curtis H. Reid.
Van Bibber	Harford	100	15	71.4[a]	− 2.2	91[a]	14†	45[a]	28	31[a]	3.17	− 1.96	1.00	0	9	24[a]	2[a]	4[a]	.....	W. Benj. Ford.
Westernport	Allegany	1,000	18	70.2	− 1.3	94	31	45	5	35	1.90	− 1.51	0.70	0	5	...	...	...	.....	Prof. O. H. Bruce.
Westminster	Carroll	860	19	70.4	− 1.0	90	18	45	28	30	3.06	− 2.15	1.00	0	10	22	7	2	w.	Prof. Geo. F. Morelock.
Woodstock	Baltimore	392	38	73.1	+ 0.8	90	19	54	4†	23	3.88	− 0.26	0.67	0	12	17	10	4	sw.	Rev. James F. Dawson, S. J.
Delaware.																				
Delaware City	New Castle	10	10	73.0	.....	91	13	52	29	30	2.14	.....	0.96	0	5	27	1	3	s.	H. Morton Price.
Dover	Kent	40	24	73.6	− 1.2	95	13	49	30	29	1.32	− 2.78	1.13	0	5	14	11	6	w.	W. C. Josting.
Milford	do	20	28	75.2	+ 0.4	95	13	52	28	27	2.70	− 0.84	1.57	0	9	15	13	3	nw.	Chas. J. Holzmueller.
Millsboro	Sussex	20	20	73.6	− 0.9	97	19	50	5†	35	1.22	− 3.86	0.50	0	8	23	3	5	sw.	Rev. L. W. Wells.
Seaford	do	40	21	73.2	− 1.3	93	19	50	28	26	1.59	− 2.43	0.61	0	5	22[a]	6[a]	2[a]	s.	E. B. Brown.
Wilmington	New Castle	86	1	74.4	.....	92	13	54	28	24	2.24	.....	0.60	0	9	19	11	1	nw.	Alexander J. Taylor.
District of Columbia.																				
Washington	Dist. of Columbia	112	42	73.4	− 1.1	92	18†	53	6	27	1.50	− 2.90	0.55	0	10	10	14	7	s.	U. S. Weather Bureau.
Virginia.																				
Culpeper	Culpeper	450	4	72.0	.....	92	19	48	5	31	1.52	.....	0.61	0	7	8	23	0	s.	Col. H. C. Burrows.
Dale Enterprise	Rockingham	1,350	33	70.2	− 2.0	96	31	40	3†	39	1.75	− 2.29	0.68	0	8	8	10	13	.	Rev. L. J. Heatwole.
Eastville	Northampton	15	2	75.4	− 1.5	98	13†	54	6	31	3.48	− 0.84	1.80	0	10	10	21	0	sw.	T. B. Robertson.
Fredericksburg	Spottsylvania	100	23	73.6	− 1.9	94	19	52	4†	30	0.91	− 3.71	0.56	0	5	15	14	2	nw.	S. G. Howison.
Lincoln	Loudoun	500	11	71.0	.....	98	21	46	5	36	2.11	.....	0.95	0	7	9	21	1	nw.	Dr. Geo. Roberts.
Mount Weather	do	1,726	8	67.8	− 1.6	84	18	50	28	18	4.54	+ 0.92	2.81	0	10	6	16	9	w.	U. S. Weather Bureau.
Onancock	Accomac	20	1	74.8	.....	95	19	50	5†	29	1.38	.....	0.69	0	5	20	8	3	s.	S. F. Rogers.
Quantico	Prince William	16	15	73.2	.....	96	19	51	4	32	0.80	.....	0.63	0	4	23	8	0	ne.	Rich., Fdksb. & Pot. R. R.
Staunton	Augusta	1,380	20	72.2	− 0.9	94	18	44	4	32	0.91	− 2.95	0.50	0	7	5	20	6	sw.	Ernest Nothnagel.
Warsaw	Richmond	100	20	74.8	− 0.7	97	19	51	5	31	2.42	− 2.12	0.80	0	8	1	28	2	s.	C. H. Constable.
Winchester	Frederick	717	1	72.7	.....	91	18†	50	5	27	2.00	.....	0.80	0	4	4	19	8	w.	Bentley Kern.
Woodstock	Shenandoah	927	16	72.6	− 1.1	96	18	46	5	38	1.86	− 1.98	1.14	0	5	9	19	3	w.	Mrs. A. G. Artz.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
**Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 1, North Atlantic States.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John																																
Bar Harbor	Coast	1.70		.35					.03		T.	T.	T.			.55	.45		T.	.15				.35		.30			.05		T.		3.93
Cambridge	Kennebec	1.68		.59				*	*	*	*	1.79	1.24											.28		.70	.27						6.55
Cornish	Saco	.64	T.	.86	T.	.08			.09	T.	T.	.30	.10			.17			.29					.62		.14	.25			T.			3.54
Danforth	Penobscot	1.10	.10	.12	.35			.15	.10	.25	.45	.20	T.			.45								.22		.50		.20					4.24
Eastport	Coast	.55		.13		T.		.10	.01	T.	.32	.21	.35		.11	.40			T.					.81		.54	.05	.17	.01		T.		3.76
Eustis	Kennebec	.90	.33	1.36	.01	.08	.32	.02	.12	.01	.18	.69	.15	.30	.03				T.			.01		.40	.03	.91	.14	.02	.01	.03			6.05
Fairfield	do	1.31		1.20			.12					.48			.25								1.55		.36							5.27
Farmington	do	1.22	T.	.57	.01	T.	.03	T.	.08	.09	.12	.08	.63	.03	.03	.02			.10					1.09	.04	.45	.08	.09		.04			5.80
Gardiner	do	1.15	.13	.38		T.		.10	T.		.03	.24	.19			.04	.05		.09	.08				.41		.05	.05						2.99
Greenville	do	.82	.10	.22	T.	.10	.07	T.	.10	.08	.52	.67	1.12	.07	.19									.36		.64	.14		.12		.06		5.38
Houlton	St. John	.80		.70			.70	.50		.90		1.40	2.00		.40									.60				.40					8.40
Howe Brook	Penobscot	.80	.40		.20	.15	.22	.40	.38	.46	.40	.44	.24	.20		.26	.12					.08		.60	.26		.32	.20		.26	.20		6.69
Lewiston	Andr'sc'g'in.	.75		.78			.07		T.		T.	.20	.44		.04	.08			.12	.03				.25			.20						2.96
Madison	Kennebec	2.18		.79		.01	.20		.03			.95	1.17		.01									.45		.39	.76		.02				6.96
Millinocket	Penobscot	1.26	.06	.18			.04	.03	.15	.26	1.10	.60	.68		1.11								.37	.41	.63	.04					.02		6.94
North Bridgton	Saco	.56		.90								.55	.09		T.	.47		.16					.02	.53	.02	T.	.25						3.55
Oquossoc	Andr'sc'g'in.																																
Orono	Penobscot	.45	.17	.47	.32					.60	.10		.04		.10	1.15									.24	.55		.10		.40			4.69
Patten	do	1.64						T.		2.00	2.00	1.00	1.00	T.	2.00								T.	T.	1.64			T.				11.28
Portland	Coast	.63		.33		.02			.01		.01	.18	.02			.32			.17	.02				.29		.03	.23						2.26
Presque Isle	St. John																																
Rumford Falls	Andr'sc'g'in.	.72	T.	1.07		T.			.06	.06	.02	.73	.85		.08	.05			.16					.13		.67	.23		T.	.06			4.89
The Forks	Kennebec	.55	.35	.50	T.	T.	T.	T.	*	*	*	*	*	1.79										.48			T.		T.				3.67
Winslow	do	1.30	.03	.68		.05			.02				.26		.02						.04			2.00		.40							4.80
New Hampshire.																																	
Alstead Center	Connecticut	.33		.83		T.	.07	T.		T.	.07	3.21	.12			.35			.71	.03			.78	.79			.90						8.19
Benton	do	.95		.12	1.00							1.65			.05	.17							.15	.47		.39	.31						5.26
Bethlehem	do	.91	.08	1.19	.09	.05		T.	T.		.06	1.08	.11		.10	.46			.10					.63	.26	1.18	.61			.08			5.92
Brookline	Merrimack	.30		.28								.80				T.			.90					.45			T.						2.73
Concord	do	.82		.22					.01	T.	.01	.40	.01		.12	.35			.63			.04	.14	.24			.40	T.					3.39
Durham	do	.40										.26				.24			.73					.50	.70		.12						2.95
Franklin	do	.75		.70					T.			.21	.03		T.	.03			.49	.09			.01	.12			.63			T.			3.06
Grafton	do																																
Hanover	Connecticut	.78	.03	.53					.04	T.	.18	.94			.02	.07			.42	.04		.01	T.	.09			.37						3.52
Keene	do	.41	.01	.42			.01				.01	1.03				.02			.70		T.		.23	.51			.75						4.10
Nashua	Merrimack	.22		.21							T.	.70			.08	.11			.61					.41			T.						2.34
Newton	do	.54		.08							T.	.25	T.		.04	.20			.65					.75				T.					2.51
Plymouth	do	.97		.84		T.			.11		T.	2.19			.05				.44	.03		T.		.30	.05	T.	.40	T.					5.38
Vermont.																																	
Bloomfield	Connecticut	.37	.11	.56	.16	.02		.13	.01	.06	.11	.20	.28			.37			.07					.59	.20	1.25	.20	.13		.34			5.16
Cavendish	do	.71		.41		T.	T.				.12	.79	.02		.03	.07			.68	.01			.08	.14			.56						3.62
Chelsea	do			.79								.60	.84		.52	.15			.22					.08	.12		.52						3.84
Manchester	Hudson	.23		.42		T.				T.	T.	.71			.17	.11			.69			.24		.28			.94					T.	3.79
Somerset	Connecticut	.30		.57		.02			.01	.03	.25	1.18	.01						.93	.01		.08	.17	.17			.45						4.18
St. Johnsbury	do	.08	T.	.08	T.	.38	T.	.02	T.	T.	.90	.27	.28	T.	.07	.15		T.	.06	.05	T.			.39	.09	.27	.56	.21	T.	.04			4.80
Vernon	do	.24		.41		.01				.01	.80	.78							1.28			.02	.21	.08			.21						4.05
Woodstock	do	.56		.36	.21							.84							.57			.18					.41						3.13
Massachusetts.																																	
Amherst	Connecticut	.02	.13			.01				.01	.02	.91			.21	.16			.54		.59			.04									2.64
Ashland	Merrimack																																
Bakers Bridge	do	.37		.10								.58			.30				.45		.52			.23									2.55
Bedford	do	.39		.11							T.	.42			.26	.14			.44		.24	T.		.19									2.19
Blue Hill	Coast	.10		.34		T.		.02			.01	.96	.08		.50	.06			.52	T.	.33	T.		.93									3.85
Boston	do	.08	T.	.12				T.				.66			.02	.21			.45		.34			.06						T.			1.94
Chestnut Hill	do		.14								.45	.20			.06	.33			.48	.53				.05									2.24
Clinton	Merrimack	.06		.26				.35		T.		1.30			.26	.03			.74		.26			.37									3.63
Concord	do	.87		.16				T.			T.	.59		T.	.65	.10	T.		.47	T.	.29	T.		.24									3.37
Fall River	Coast	.95	1.05	.27	.05							.60			.06				.45		1.10	.07											4.60
Fitchburg	Merrimack	.09		.30						T.	T.	1.28							.86	T.				.33			T.						2.86
Framingham	do		.12									.88			.47	.01			.54		.86			.04									2.92
Haverhill	do	.31		.22								.29	.37		.30	.01			.43	.07				.28									2.28
Hingham	Coast	.36		.26				T.			.25				T.	.11			.31		.32			.90									2.51
Hyannis	do	1.19	.32	.60								.28							1.95		.60	*	.51										5.45
Jefferson	Merrimack			.27								.98							.68		.38			.17									2.48
Lake Cochituate	do		.09						.09			.67			.12	.03			.53		.71			.02									2.26
Lawrence	do	.57		.15		T.					.01	.41	T.		.27	.14			.57		T.	T.		.54									2.66
Leominster	do	.14		.27							.04	1.27				T.			.86	T.	.06	T.		.32			T.						2.96
Lowell	do	.42		.18								.37			.30	.08			.61					.27									2.23
Middleboro	Coast	.71	.01	.21				T.				1.01			.09				.43		.60	.03		T.									3.09
Nantucket	do	1.28		.04								.22				.01			.54		.74	T.	.04	T.					T.				2.87
New Bedford	do	1.32		.62								2.33			.05				2.21		.64		.18										7.35
Norfolk	do	T.		.32								.85			.34	.14			.70		.40			.63									3.38
Plymouth	do	1.05	*	.85								*	.72		.17	T.			.47		.52			T.									3.78
Princeton	Merrimack	.04		.36								1.61							.75		.32			.26									3.34
Provincetown	Coast	1.07		.73								.52			T.				.36		.38			T.									3.06
Rockport	do	.45		.30							T.	.40				.30			.70					.10									2.25
Rutland	Connecticut	.12		.28						.02	1.55	T.			T.	T.			.71	T.	.47	T.		.15			.03						3.33
Somerset	Coast	.98	.24	.31								.61			.33				.34		.74	.02		.04									3.61
Spot Pond	do	.03	.11						.04		.02	.49	.09		.05	.02		.02	.40	.74	.02	.01		.07			.02						2.13
Springfield	Connecticut	.02		.54								.03	.49	T.					1.35	.01	1.03	.04		.16			.13					.01	3.81
Sterling	Merrimack	.04		.20					.10				1.28						.79					.41									2.82
Taunton	Coast	.54	.23	.26					T.			T.	.71			.11	T.		.57		.82	T.		.43									3.67
Turners Falls	Connecticut	.22		.59					.02				1.10	.10					1.00	.14	.10			.33			.04						3.64
Westboro	Merrimack	.20		.23								T.	.70	.01	T.	T.			.79		.80			.16									2.89
Williamstown	Hudson	.22		.28			T.	T.		.03	.02	.94	T.						.47	T.		T.		.83			.85	T.				T.	3.64
Winchendon	Connecticut	.54		.38							.06	.27				T.			.70	.02	.02			.18									2.17
Worcester	Coast	.39		.57				T.		.02	.01	1.22	.21		.13				.69		.52	T.		.12			T.						3.88
Rhode Island.																																	
Block Island	Coast	.89	.01	.28								.58							.80	.06	.42	.14							T.				3.18
Bristol	do	.90	.02	.20								.40			T.				.38		1.14	T.											3.04
Greene	do	.30		.26								1.05			.19				.73		.74	.17											3.44

TABLE 2.—*Daily precipitation for August, 1912. District No. 1*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Rhode Island—Con.																																	
Hope Valley	Coast	.56		.19				T.				.48	T.						1.25	.05	.52		.04	T.					T.		T.		39.0
Kingston	do	1.70		.15								.43							1.63		.63	.03	.05										4.62
Narragansett Pier	do	.72	.32	.24								.58							1.05		.48								T.			T.	3.39
Pawtucket	do	.17		.13	T.					T.		1.25			1.40	.04			.68		1.28	.02		.45								5.42
Providence	do	.31		.11	T.					T.	T.	1.01			.28	T.			.61		.55	.03		T.							T.	2.90
Wallum Lake	do																																
Connecticut.																																	
Bridgeport	Coast			.15		T.				T.	T.	1.18			.03				1.79	.03	.23		T.	T.	T.				T.	T.			3.41
Canton	Connecticut	T.		.37						T.	T.	.66	.03		.18				1.29	.38		.25		.22			T.			T.		T.	3.38
Colchester	Coast			.20							T.	2.66	.05		1.36				1.02		.22	T.	.08	T.							T.	5.59
Cream Hill	Housatonic	.04		.36						.04	.17	.02	.03		.08				.93	.09		1.28	.06	.53		.04	.42			.08		.09	4.26
Danielson	Coast	.53	.03	.12								1.08			.08	.02	.02		.85		.98	.08		.02								3.81
Falls Village	Housatonic			.31						.05	.26	.71	T.		.07				.93	.30	.20	.58	.41			T.	.45						4.27
Hartford	Connecticut	T.		.26						T.	.09	.27	.01	T.	T.	T.			1.38	.11	.37	.35	.01	.15						.02		T.	3.02
Hawleyville	Housatonic	.14		.22							.08	.45		.17					1.20	.10	.40	.03	.11	.08					.02				3.00
Lake Konomoc	Coast	.23		.27									1.00						1.00	.50	.10		.15										3.25
New Haven	do	.02		.33				T.	T.		.06	1.06			.39				1.11	.17	.02	.01	.02	.01					.02	T.	T.	T.	3.22
New London	do	.34		.67											.40				1.51			.35	.02						.04				3.33
North Grosvenor Dale.	do	.11										.91			.69	.35			1.18		.92	.04		1.02									5.22
Norwalk	do			.31								1.55							2.35	.42				.03					.02				4.68
Southington	do	.10		.30						T.	T.	.65			T.				1.00		.10	T.	.55	.10						T.			2.80
South Manchester	Connecticut																																
Storrs	Coast	.10		.11								1.85			.66		.10		1.12	.95				.60									5.49
Torrington	Housatonic	.01		.54							.04	.81	.02			.10			.82	.26	.22	.06	.15	.04	.22			.14		.02			3.45
Voluntown	Coast	.37		.48								1.05				.02			.54		.44		.04										2.94
Wallingford	do	.34	.91							.01	1.65		.02		.02			.44	.63	.11		.51		T.				T.					4.64
Waterbury	Housatonic	.11		.36						T.		.61	.11	.06					1.31		.07	.29		.20					T.				3.12
West Simsbury	Connecticut	T.		.43				T.		T.	*	1.01			T.				1.49		.64	.52		.11		T.	.03		T.			T.	4.23
New York.																																	
Addison	Susque'na	.09	.49	.03	.01	.01		.10	.06	T.	.67	.35	.09	T.	.10			T.	.75	.08	.02		.56	.41		.40	.03	.84	.04	.09		.36	5.58
Albany	Hudson	T.	T.	.18					T.	.17	.67	.09	.04		T.				.40	.01		T.	.08	.51			.84		T.	T.		.01	3.00
Alfred	Susque'na		.63	.13					T.	.22	T.	.20		.23				.68	.10	.19			.23	.52		.48	1.20	.01	.15			.19	5.16
Amsterdam	Mohawk			.25			.05			.09	.28	.49	.04		.04	T.			.39	T.		T.	.20	.30		.01	.33					.03	2.50
Athens	Hudson	.18		.22				T.		.62	1.24	.26	.06		T.	T.			.68	.08		.06	1.61	.32		.08	.40	T.		.02		.02	5.85
Bainbridge ‖	Susque'na			.30			.05				.90	.90	.09		.19					.50		.52	.64	.45		.30						.45	5.29
Ballston Lake	Hudson	.01		.27					T.	.13	.49	.71	T.		T.				.68	.01			.46	.61	T.	T.	.44					.05	3.86
Bedford	Coast	.23									.19	.22						2.16	.03	.13			.18	.03									3.17
Beerston	Hudson			.10		.32	.03				42 1.06			.27				.91				.70	.30	.19		.60		.03		.03		.14	5.10
Binghamton	Susque'na	T.	.04	.01		.03			T.	.09	1.91	.10		.08	.02			.01	1.12	.25		1.23	1.23	.56		.73	.02	.09	.02			.18	7.72
Bouckville	do		.08	.76	.17	.54			.04		.70		.26		.82				.32	.12		.12		.44				.16		.04		.08	4.65
Carmel ‖	Hudson	.15		.48							.02	1.08	.01			.04			1.60	.81	.60			.01	.10								4.90
Chatham	do	.08		.35						.07	.01	.82	.03		.02	.02			.52	.01	.41			.92			.06						3.32
Cooperstown	Susque'na		.35	.19		.06				14	2.25	.08	.03		.46				.49			.12		1.23	.45			.17	.07				6.09
Corinth ‖	Hudson										.15	1.30							.66	.05				.25			.50						2.91
Cortland	do		.01	1.02		.12	.05		.07	.05	1.58	.37	.10		.15					.53	.09	.08	.08	.51				.37		.04		.09	5.31
Cutchogue	Coast	.24		.18								.81							1.36		.48	.15						.01					3.23
De Ruyter	Susque'na		T.	1.10	.01	.11			T.	T.	1.15	.19	T.		.09				.56	.22		.21	.04	.45		.19	.10	.35	T.	T.		T.	4.77
Elmira	do	.15	.49	.03		.02		.08		T.	.93	.30		.04				.80	T.	.09		.17	.03	.54		.08	.58	T.	.04	T.		T.	4.37
Ephratah	Mohawk			.18		.10		.01			1.60	.20	.05		.20				.38	T.		.28		.40		.05	.05					.04	3.54
Glens Falls	Hudson	.02		.38	T.	T.	.01		.10	.02	.40	.32			.05	.25			.88	T.		.05	.03	.52	T.		.38					T.	3.41
Gloversville	Mohawk			.43						.04	1.20	.22	.08		T.				.48	.02		.28		.66	T.	.05	.16					.06	3.68
Greene ‖	Susque'na	.28		.15	.03						.20	2.00	.05		.02				.48	.04			.10	1.00	.32		.18			.23			5.08
Greenfield Center	Hudson	.10	.30							.18	.11	.50							.60			.10		1.05			.43					.05	3.42
Greenwich	do	.08	.02	.34							.28	.42							.70				.05	.45			.69						3.03
Griffin Corners	Delaware			.11						.21	.82	.45	.43		.11				.66		.11	.20	.17	1.20		.07				T.			4.54
Hancock	do																																
Haskinville	Susque'na	T.	.35	.43		.03				.10	.28	.20	.05	.05					*	.43		.80	.15	.40			.45	.28	T.	T.		.05	4.05
Homer	do																																
Hoosick Falls ‖	Hudson	.16	.05	.31							.02	.58				.03			.62	.18				.04	.40		.42	T.					2.81
Indian Lake	do			.90	.10	.04					.60	.10		.10					.30				1.02		.30	.40			.02				3.88
Jeffersonville	do			.24		T.		T.		.55	1.91	.15							1.33	.09		.11	.05	.36		.02		.02	T.		.22		5.05
Liberty	do		.10	.05			.20	.15	.90	2.55								1.35	1.50	1.10	.15	.35					35				.03	.20	8.98
Little Falls	Mohawk			.33		.04		T.		T.	.63				.20				.33			.09	T.	.19			.19	.04				T.	2.04
Mechanicsville	Hudson		.16					T.		.07	.77	.03							.05	T.		.33	T.	.18			.40					T.	2.72
Mohonk Lake	do		.30							.40	.24		1.19	.02	.01			.75	.07	.20		.15		.30			.25						3.88
Morehouseville	Mohawk			.90	.34	.02		.04		.04	.18	.03	.05		.36	.08			.18	.06			.15	.20	.04	.12	.22	.05				.07	3.13
Morrisville	Susque'na			1.30	.60	.12			.10		.50			.30	.87				.20	.08				.32				.02				.20	4.61
Mount Hope	Coast	.78									1.14								.77	.28	.23											.32	3.52
Newark Valley	Susque'na	T.	.44	T.					T.	.20	1.26	.50	.12						.58	.08		.41	.30	.95	.69		.19					.17	5.89
New Berlin ‖	do				.05				.11		.09				.21	T.			.44	.20	.05			1.96	.63				T.				3.74
New Lisbon	do			.33						.02	1.65	.32	.07		.59				.55	.07	.02	.08	.36	.52			.22	.06		.03		.06	4.95
New York City	Coast	.27	.02	.06						T.		.36			.06				.51	1.17		.01		.13			.06		T.	.09		.03	2.77
North Creek	Hudson			.63		.10				.23	.19					.18			.42			.82		.12	.32	.32							3.33
Northville ‖	do		.38							.32	1.50	.10							.55			.48	.21				.26						3.80
Norwich ‖	Susque'na			.23	.02		.17		.72		.21	.83	.03	T.	.13	.01			.41		.11		.05	1.43	.36			.06	T.	.08			4.85
Oneonta	do		.31							.07	2.40	.15			.49				.50	.19		.22	.14	.46			.08					.04	5.05
Oxford	do			.24	T.				T.	.15	1.17	T.			T.				.43	.15	T.	.37	.64	.50			.12	.15				.19	4.11
Port Jervis	Delaware	.02	.64							.21	.65	.88	.12		.04				1.61	.02	.02	.02	.02	.26			.19	.01	.02			.14	4.87
Roslyn ‖	Coast	.39		.13						T.	.01	.81	.05						1.67	.82	.67						T.		.06		.15	4.76
Salisbury	Mohawk			.18		.10					.09		.11		.28				.51			.93			.18		.28	.08					2.74
Scarsdale	Coast			.23						T.	T.	.83			.10				2.30	.25			.15	.20								.10	4.16
Setauket	do	.13		.35						T.	.02	.40			.03				1.30	.50	.25	.04		T.			T.		T.	T.		T.	3.02
Sherburne	Susque'na			.65	.24					.11	.62			.12	.23				.51		.21	.32	.53	.20				.23					3.97
Southampton	Coast	.44		.18								.08				.01			1.64	.08	.48	T.		T.					T.	.02			2.93
South Edmeston	Susque'na			.62	T.	T.				.08	.77		.01		.05	T.			.44	.10		.22	.11	.97			.15	.03		.01		.06	3.62
Spier Falls	Hudson	T.	.37				T.		T.	.23	.70				T.	T.		.61	.25			.03	.25	.12			.34				T.	2.90
Trenton Falls ‖	Mohawk	T.		1.15	.05	T.					.10	.43	.05		.10	.03	T.		.30	.18				.65	.40	.15	.10		.52				4.21
Tribes Hill	do			.90							1.10								.60					.60	.80		.60						4.60
Utica ‖	do	.10		.85	.17						.15	.38	.05		.26	.15			.31					.04	.32								2.78
Wading River	Coast			.10								.11				.07			1.50	.10	.62	.05		.01					T.				2.56
Wappingers Falls	Hudson			.35						.14	.26	.76	.10		.18				1.10	.06		.42	.24	.48					.05				4.14
Warwick	do			.40						.27	.70	.93	.10		.05				1.92		.33		.02	.30					.02			.15	5.19
Waverly	Susque'na		.07	.17		.04				.14	1.84	.27	.22						1.31	.06		.60	.48	.27	T.	T.			.35	.07		.25	6.14
West Berne	Mohawk			T.						.34	.33	.78	T.		.20				.37	.11		T.		1.21			T.						3.34
West Point	Hudson			.47						.82	1.02								1.50		1.15											.30	5.26
Windham	Mohawk	.22		T.				T.		.35	.70	1.42	.13		.10				.40		.22	.11		.77			.06						4.48

TABLE 2.—*Daily precipitation for August, 1912. District No. 1*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Pennsylvania.																																	
Allentown ‖	Lehigh		.33						.08	.20	2.80	.32		.31				.08	.31	.34		.13	.12	T.					.08			T.	5.10
Altoona	Susque'na	.08		.15							.76		.10		.02					.04	.25	.90		.37			.13	.11		.18		.14	3.24
Ansonia ‖	do	.04		.34	.11						.51	.19	.67		.07				.50	.14	.06	.05	.17	.04				.47	T.	.21			3.57
Bethlehem	Lehigh			.13						.16	1.17	1.85		.17	.09	.10					.38	.09		.72					.08				4.94
Browers Lock	Schuylkill											3.00	.32		1.86				.14				.12									.28	5.69
Catawissa	Susque'na		.45	.01		.16			T.	.31	.61	.58		.82					.42	.84		.17		.10			.27					.07	4.87
Center Hall	do		T.	.01				.10	T.	.08	1.38	.35	.14	.22	T.					.06		.28		.04				.12	.30		.01	3.09
Coatesville	Coast	.07		.10					.10	.28	2.40	.64	.12						.22	.10		.01	.54	.25					.02			4.85
Doylestown	Schuylkill	.07		.50							3.60	.45	.20		.18				.63	.82				.31								6.76
Drifton	Susque'na		.60							.30	.70		.75	1.48					.60	1.40	.30	.70		.75			.27	.32	.20		.05	4.82
Emporium	do	.20	.42						T.	.18	.07	1.74	.07	.08				T.	1.24	.45	.04	T.	T.	.27		.08	.41	.19	.77		.07	6.88
Ephrata	do	.02		.43						.74	.42	.54	.25	.11						.08		.03	.25	.02				.01	.01			2.91
Everett	Juniata		.07								.29	T.		.60						.63	.08	.02	.07	.02					.52		.15	2.45
Forks of Neshaminy	Delaware	.12	.37								.57	.10		.33	.03				.31	.37		.12	.05					.22				2.59
George School	do	.18		.11						.05	.17	.32			.02	.01			.40	.08	.02	.06		.14				.03	.09			1.68
Gettysburg	Potomac	.24		.09						.45	.65	.02	.06	T.					.44	.03	.09			.01					.19		T.	2.27
Girardville	Susque'na		.22	.04		T.				.90	2.31	.44		1.18					.50	1.16		.16		.39				.20	.07		T.	7.63
Gordon	do		.04	.46	.02		.02			.46	2.03	.11	.27	.28	.05				.62		.92	.11	.02	.49	.02			.10	.20			6.28
Hamburg	Schuylkill		.79							.68	1.85	.39		.24				.69	.55													5.19
Hanover	Susque'na	.40	.40	.10						.45	.48	.24	.22	.10					.40	.12	.05			.04					.28			3.58
Harrisburg	do	.01	.24	.01				T.	T.	.80	.77	.12	T.	.43	T.			T.	.13	.02			.31	.04				.06	.01		.08	3.03
Huntingdon	Juniata		.20	.01					T.	.13	.92	.12		T.	.12			T.	T.	.32		.18	.02	.37			.09	T.	.10		.08	2.73
Hyndman	Potomac		.15							T.	.43	T.			.11					1.32	.25	.06	.19	.10		T.		.64	T.		.19	3.47
Kennett Square	Coast								.05	.18	2.88			.18		.52			.56	.28		T.		.10								4.75
Lancaster	Susque'na	T.	T.							.47	1.60	.24	.03	.09				T.		.46		T.	.63	.05				.05				3.62
Lansdale	Schuylkill			.18								3.58	.37		.71				.65		.85	.17		.03								6.54
Lawrenceville	Susque'na	.05	.60	.18		.05			.05		.60	.30		.35					1.20	.10			T.	.50		.50		.90	.10		.20	5.65
Lebanon	do		.04							.57	.33	.06	.15	.44					.07		.02	.10	T.	.12	.19			.03				2.12
Le Roy	do		.05	.20		.01				.15	3.00	.40		.23	.30				.53	.13	.20	.03	.02	.14	.07		.03	.21	.11	.03		.43	6.27
Lewisburg	do		.18			.10			.01	.77	1.08	.30	.01	.05					.69	1.00	.02	.18		.40					.10				4.89
Lloyd	do		.26	.16	.02			.03		.40	.62	.40		T.	.27				.90	.50	.03	.18		.10	T.			1.35	.14	.20		.15	5.71
Lock Haven	do		.32				.07		.01	.36	1.66	.41		.21	T.				.40	.20	.48	.05	.31	.05			.04	.09	.15	.25		.05	5.11
Marion	Potomac	.32		.06						.70		.43		T.				.08	.84				T.	.20				.04		.50		T.	3.14
Mauch Chunk	Lehigh			.63						.19	1.63	.03	.35	.47		.13			.35	1.67	.11	.07		.30					.13	.07			6.13
Mifflintown	Juniata	.06	.04	.20						1.60	.27	.16			.14					.54		.29	.01	.02				.08	.03	.05			3.49
Milford	Delaware	.01		.53						.62	.60	2.03	.12		.06				1.21	.02	.01	.03	.14	.25			.22	T.	.01			.01	5.87
Montrose	Susque'na			.15	.10					.16	2.00	.35	.05		.40				.65	.10		.14	.45	.25		.17		.52		.05		.08	5.62
Mountain House	Juniata		.13							.32				.75						1.58	.12		.10					.12		.42		.13	3.67
Mount Gretna	Susque'na		T.	.50				T.		.72	.29	.41	T.	.16	T.							T.	.39	.02	T.				.04	.06			2.85
New Germantown	do		.15						1.60		T.		.60	.05									.40	.20					.15			3.15
Ottsville	Delaware			.40						.17	2.02	.98	.13		.04				.18	.05		.16		.14			.07		.02	.07	.04	4.47
Philadelphia (1)	do	T.	.02	T.						T.	.20	.04		.09	.03				1.24	.01		.04		.03				T.	.01			1.71
Pocono Lake	do			.70		T.				.87	1.47	.19	.44		.11	.25			1.20	T.	.38	.29		.40				.28	.06		.09	6.73
Point Pleasant	do			.20							3.37	.31	.51						.37			.13										4.89
Pottsville	Schuylkill		.33							.76	.95	.31		.10					.53	.36		.15		.50				.04	.19		.01	4.23
Reading	do	.16	.59					T.		.25	1.93	.11		T.	.09				.17	.01		.06	.66	.18				.02	.10		T.	4.33
Renovo	Susque'na	.33	.07	.48						T.	.40	.40	.18		.32				1.70	.30	.10			.36			.27		.61			5.52
Scranton	do		.27	.01				T.	T.	.23	.32	.37	T.	.02	1.78	T.			1.18	.15	T.	.07		.34		T.	.09	.04	T.		.04	4.91
Seisholtsville	Schuylkill	.23		.34						.23	.56	.30	.08		.54				.18			.28		1.07					.17			3.98
Selinsgrove	Susque'na		.02	.30						.74	1.12			.74					.64	.31		.29		.34			T.	.09	.19			4.78
Shawmont	Schuylkill	.10		.08							.05	.20							2.00	.10				.10								4.03
Smiths Corners	do		.20								3.69	.36	.39						.38	.10												5.12
Spring Mount	do			.35						.12	.47	1.03	.37		.59				.80	.36		.43	.03	.04					.05			4.64
State College	Susque'na	T.	.14	.01				T.	T.	T.	.62	.56	.18	.38	T.	T.			.03	.42	.01	.43	T.	.31			.15	.20		.34		.14	3.92
Stroudsburg	Delaware	.05		.42						.35	2.03	1.49	.21		.01		.02		.98	.99		.02		.09	.08		.02	.01	.04	.06		.07	6.94
Towanda	Susque'na		T.	.11		.03			T.	.25	.74	.99		T.	.08				.89	.11	.01	.08	.14	.36				.21	.05	.03		.04	4.12
Weikert	do		.13							1.35	2.03	.76		.09					.15		.08	.12		.23					.14	.36			5.48
Wellsboro	do	.10	.41							.09	.54	.15	.76	.41	.13				.50	.18		.05	.04	.15	.02		.15	.36	.14	.09	.26		4.53
West Chester	Coast	.16		.01					.01	.26	2.20	1.22			.17				.28	.09		.02		.28					.01	.02			4.73
Wilkes-Barre ‖	Susque'na			.34	.01		.01				.03	.30	.22			.41			.96	.08	.18	.16	.12		.20			.05		.10			3.17
Williamsport ‖	do	.03		.23				.04		.40	3.70	2.10	.53		.05	.02			.42	.06	1.17			.48	.07			T.		.35			9.65
New Jersey.																																	
Atlantic City	Coast	.02	.03	.01								.08	T.	T.	T.			T.	1.96	.68		.42	T.	T.					.01				3.21
Bayonne	do	.35		.15						T.		.93			.05				.58	.24	.79	.21		.12			.01	.02	.02	.02		.03	3.52
Belvidere	Delaware			.42						.15	.55	2.15	.22		.38				.89	.46				.15	.03				.10			T.	5.50
Bergen Point	Coast	.67	T.	.14								.82	T.		.15				.72	.21	.49	.20		.32			T.		T.			T.	3.72
Boonton ‡‡	Passaic	.93		.28							1.15		.70		.03				1.45	.04	.77	T.		.63	.07					.04		.22	6.31
Bridgeton	Coast		.03											T.				T.	1.10	.05		.10											1.28
Burlington ‡‡	Delaware		.05							.03	.57				.29			.27	1.50	.04			.04	.05			.07		.09			.06	3.06
Cape May City	Coast	.10	.02											.83					.30	.54		T.	.01					.02	.06		.05	1.93
Charlotteburg	Passaic		.47								1.25	3.36	.30						1.35	.45	.07			.07	.30								7.62
Chatham ‡‡	do	.70		.25							.40	1.05	.20			.10			.45	.10	.85		.10					.05		.05			4.30
Clayton	Coast	.20		.09							.22				.47				.47		.11	.40		T.					.03			1.99
Culver's Lake	Delaware	.04	.42							.19	.89	2.00	.08		.20				1.18	T.	.07	.05	.07	.40	T.				.02	T.		.01	5.62
Dover	Passaic		.52							*	3.04	.07		.07	.09				1.05	.63				.40					*	.07			5.94
Elizabeth	Coast		.16							.02		.32	.02		.10				1.00	T.	.81	.12		.06			.06		.03				2.70
Flemington	do	.20	T.	.30						.08	1.42	1.33	.18	.05	.43	.04			.48	.15	.35	.03					.11		T.	.03		.05	5.23
Haddonfield	Delaware	.20		.19						T.	.28	.08			.09			T.	1.04	.30		.12	T.	.05					T.	T.			2.35
Hammonton	Coast	.01		.03							T.				.33				.53	.08	T.	.71								.03			1.72
Hightstown	Delaware	.16		.26						.10	.12	.05			.04				1.23	.65				.05			.30		.05	.10			3.11
Highwood	Coast	.11		.29						T.	T.	.28	.02						1.77	.03	.21	T.	.04						T.	.02		.05	2.82
Imlaystown	Delaware	.19		.10						.08	.07				.02				1.20	.24		.06					.05	.04				.54	2.59
Indian Mills	Coast	.20		.25							.03				.44				.74	.90		.90		.17					T.				3.63
Jersey City	do			.13						T.	.02	.57	T.		.10				.72	1.24		T.		.03					T.	.05		.03	2.89
Lambertville	Delaware			.25						.10	.50	.50	.30		.60				.35	.05	.05	.10	.05						T.	.15			3.00
Layton	do	.09		.43						.30	.48		1.35		.05				.92	.08			.15	.25					.03				4.13
Little Falls	Passaic		.20	T.						.10	.70	.13	.06		T.			T.	1.45	.89		T.	T.	.25					.03	T.		.09	3.90
Long Branch	Coast	.19		.16						T.					.02				1.46	.21		1.00					T.		T.	T.		T.	3.04
Mahwah ‡‡	Passaic			.38							.07	1.82	.17		.11				2.04	.15	.44				.24								5.42
Moorestown	Delaware	.28		.07							.24				.74				1.18	1.11		.42		.22					.08				4.34
Newark	Passaic	.08	.26	.05						.05		.36	.03		T				1.37		.01	.01		.02		T.			.01	.05		1.00	3.30
New Brunswick	Coast	.55		.22				T.		.13	.19	.47			.35				.37	.65	.39	.03								.09		.02	3.46
Newton	Delaware			.39		.05				.17	.94	1.03	.11		.19				.81	1.07	.38	.23		.13					.02	.03			5.55
Northfield	Coast	.09		.06															2.08	.20	.05												2.48
Paterson	Passaic	.51		.72						.04	.15	.32	.05		T.				1.77	.61		.04		.32			T.		T.	.03		.05	4.61
Phillipsburg	Delaware	.03	.36	.03						.13	1.63	.43			.34			.01	.25	.58		.05	.08	.44					.05	.02		T.	4.43
Plainfield	Coast	.12	.10	.02						.26	.29	.33	.15	T.	.46			.02	.53	1.35		.27	T.	.02			.10		T.	.03		.04	4.09
Pleasantville	do	.04	T.	.06														T.	1.56	T.		1.15		.05					T.	.02			2.88
Pompton Plains ‖	Passaic	.35		.28							.16	1.97	.18			T.			1.72	.16	.41		.06	.39	T.					T.			5.68

TABLE 2.—*Daily precipitation for August, 1912. District No. 1*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***New Jersey*—Contd.**																																	
Somerville	Coast		T.	.22						.47	.41	.24	.27	.03	.29				.32	.21	.75						.03			.06		.01	3.31
South Orange	do		.18							.03	.33	.05			T.				.60	.69							T.		T.	.02		T.	1.90
Sussex	Hudson			.39						.25	.58	1.11	.10		.07				1.28	.09		.04	.02	.28				.03					4.24
Trenton	Delaware	.32		.18						T.	.22	.30				.01			.44	.04	T.		.10				T.		T.	.10			1.71
Tuckerton	Coast											.09			.01				.93	.70		.57		.22						.03			2.55
Vineland	do										T.								.84	.14	.12		.09						T.				1.19
Woodbine	do	.24		.02											.14				2.45		.08									.01			2.94
West Virginia.																																	
Bayard	Potomac	.52	.21	.09			.12	T.	.15		.05		.22	.01		.69			.29	.40	.13	T.		.06			.04	.11		1.07		.27	4.43
Burlington	do		.10								T.	.05			.10										T.						T.	0.25
Harpers Ferry ‖	do	T.	T.							1.10	.85	.40			1.10	T.					.30								.42		.10	4.27
Lost City	do		.11							.20					.14											.05		.72			.27	1.49
Martinsburg	do									.77	T.			.20	.08				T.	.45				T.					.40		.20	2.10
Upper Tract	do	T.					T.											T.		T.	.60		T.				.05	.03				0.68
Maryland.																																	
Annapolis	Coast	T.									.18			T.					.46	.03										.35		T.	1.02
Baltimore	do		T.							.72	1.20	.01		T.				.45	.21	.09		T.	.37	.01					.03	.10		T.	3.25
Cambridge	do													1.25						.63										.43			2.31
Cheltenham	do			.07						.07	.11	.11								.40		.04	.07					.12		.42			1.41
Chestertown	do								.20	.10	.04								1.13	.30										.10			1.87
Chewsville	Potomac	.08	.09					T.		1.11	.10	.23	T.	.02	T.			.03	T.	1.07		T.		.11					.06	.34		.05	3.35
Clear Spring	do	.12	.25	.13						.40	.20	.30	.11		1.04	.02					.80		T.		.22			.33		.54	T.	.05	4.60
Coleman	do	.25									.25								.90	.46			.26						.10	.10		.01	2.39
College Park	do	.03		.10						.10	.15			T.		T.			.02	.30	T.							.02		.41		.02	1.15
Cumberland	do		.01							T.	T.		.03			T.				.20	.39	T.	.12				T.		T.	.23		.37	1.35
Darlington	Coast	.21		.06						.50	.08	.67		T.				T.	.21	.10		T.		1.01						.04			2.88
Denton	do		.11	.08					T.	T.	.17				.30					1.11			.03				T.						1.80
Easton	do	.14	.04	.05										.28						.95			.07							.33			1.86
Fallston	do	.34		.17						.18	.52	.24		.24	T.			T.	.65	.18	T.	.03		.13						.13			2.81
Frederick	Potomac	.06	.03	.33					T.	.60	.96	.07		.04	.02	T.		T.	.12	.60	.01	T.		.14						.31		.03	3.32
Frostburg	do		.02				.03		T.	T.	.11	.02	.06			.32				.21	.47			.04				.03		.43		.69	2.43
Great Falls	do	.05		.02							.19										.18			.25				.02		.43			1.14
Green Spring Furnace.	do	.21	.14							.67	.34	.05			.02					.50	.05							.28		.40		.04	2.76
Keedysville	do		.28					T.		1.10	1.02	.02		.17	.01				T.	1.10	.04	T.		.10				.16		.41		.03	4.44
Lake Montebello	Coast		.15	T.						.67	1.72	T.							1.09	.22	T.			.46						.16		T.	4.47
Laurel	do									.27	.18		.02						.13	1.50				.12						.30		T.	2.58
Leonardtown	do	.21	.18											.48					.01	.42							T.	T.		.82			2.12
Monrovia	Potomac	.53		T.					T.	.79	.06	.65		.02				T.	.28	.74	.03			.06						.31		.02	3.49
Pocomoke City	Coast	1.71			.19										.23	.02			.08	.40			.82			T.				.76			4.21
Porto Bello	do																																
Princess Anne	do	1.26	.11		.05						.05				.04		.20			.14	.95			.05				.10		.68			3.63
Rockville	Potomac		.08	.08						.24	.02									.15	.32		.01	.10	.31					.35		.04	1.70
Salisbury	Coast	2.00									.06			.10						.10	.40							.13		.30		T.	3.09
Solomons	do	.03	.03		T.					T.	T.			T.		T.		T.	.08	.48		T.					.06	.05	T.	.81			1.54
State Sanatorium	Potomac		.04	T.						1.30	1.95	T.	.04	.03	T.			T.	.40	.95				.30					T.	1.25	T.	T.	6.26
Sudlersville	Coast	T.		T.					.07	.01					T.			T.	1.38	.12				T.			T.			.09			1.67
Takoma Park	do	.05		.08							.18	.15			T.	T.			.10		.40							T.		.35			1.31
Taneytown	do	.04	.10						.02	.47	.80	.05	.19	.18	T.				.51	.35	.05			.09				.02		.55		.04	3.52
Van Bibber	do	1.00		.31						.06	.05	.10		.02					.84	.12										.67			3.17
Westernport	Potomac								.05		.10									.70				.60						.45			1.90
Westminster	Coast	.13		.06						.58	.72	.06	.01						.30	1.00										.18		.02	3.06
Woodstock	do	.50	T.	.60	T.			T.	.13	.45	.12	.43		T.					.44	.33	.02	T.		.67						.15	T.	.04	3.88
Delaware.																																	
Delaware City	do	.96		T.					.35	.37	.16				T.				T.		T.			.30									2.14
Dover	do			.02						T.			.02						1.13	.07								.08			T.	1.32
Milford	do	.24	.05	.02						T.	T.				1.57				.35	.33	.01	.01	T.							.12			2.70
Millsboro	do	.18	.07	.03										.09					.04	.50		.01								.30			1.22
Seaford	do	.61		T.						T.	T.				.10				T.	.35			.03					T.		.50			1.59
Wilmington	do	.60		.07						.28	.36								.44		.10	.17		.13						.09			2.24
District of Columbia.																																	
Washington	do		.04							.15	.50			.01	.01			T.		.32		T.		T.				.04	.15	.25		.03	1.50
Virginia.																																	
Culpeper	Rappahannock.		.04							.23	.28			.07	.08					.21							.61						1.52
Dale Enterprise	Shenandoah	.68	.03						T.	.25	.30			.04						31									.10			.04	1.75
Eastville	Coast		.16		.74										.10	.17			T.		.30	1.80	.02				.01	.13		.05			3.48
Fredericksburg	Rappahannock.	.03	T.						T.	.26	T.			T.					.03	T.		T.					T.	.03		.56		T.	0.91
Lincoln	Potomac		.05							.95	.13	.38	.03						.05											.52			2.11
Mount Weather	do		.09					.01	T.	2.29	.69			.06	.13			T.		.24	T.	T.	T.	T.					.30	.61		.12	4.54
Onancock	Coast				.43										.03	.11						.12								.69			1.38
Quantico	Potomac									T.				.03						.63							.03			.11			0.80
Staunton	Shenandoah									.09	.15				.01				.02	.01							.50			.13		T.	0.91
Warsaw	Rappahannock.		.52							.03					.04		.80			.03				.50			.05	.45					2.42
Winchester	Potomac			.25						.60	.33																			.80		T.	2.00
Woodstock	Shenandoah	T.	.30							.31						.07														1.14		.04	1.86

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.

‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 1, North Atlantic States.*

Date.	Maine.												Concord, N. H.		Massachusetts.						Providence, R. I.		Connecticut.			
	Eastport.		Greenville.		Orono.		Portland.		Presque Isle.		Rumford Falls.				Amherst.		Boston.		Middleboro.		Nantucket.				Cream Hill.		Hartford.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	57	53	58	53	69	57	65	57	.....	.....	63	56	71	55	.....	.....	71	60	73	.....	74	61	72	60	73	54	75	60
2	72	56	67	51	74	49	71	52	.....	.....	72	52	75	48	.....	.....	76	61	76	54	72	61	77	59	72	58	75	55
3	60	52	59	42	73	45	64	55	.....	.....	58	50	68	54	.....	.....	73	60	73	56	70	62	72	57	68	50	70	57
4	73	53	66	52	71	51	71	56	.....	.....	70	55	71	55	.....	.....	76	57	75	49	72	58	73	54	68	46	73	53
5	68	50	66	45	72	47	68	54	.....	.....	68	50	73	47	.....	.....	76	57	75	46	73	58	73	55	69	49	73	53
6	72	52	68	44	74	49	70	53	.....	.....	72	48	73	47	.....	.....	75	58	77	46	74	60	76	55	73	50	77	54
7	62	52	70	47	75	50	73	59	.....	.....	72	48	79	49	.....	.....	72	60	78	47	76	60	78	59	71	52	77	55
8	63	49	72	45	76	47	62	56	.....	.....	63	52	79	57	.....	.....	81	66	78	54	75	60	75	62	74	55	79	60
9	63	54	65	54	73	56	69	60	.....	.....	73	59	76	59	.....	.....	80	63	77	50	72	59	74	60	72	56	79	62
10	62	54	65	55	72	52	71	60	.....	.....	74	60	79	63	.....	.....	82	66	79	60	77	65	78	66	76	59	80	67
11	67	56	68	64	73	64	70	62	.....	.....	75	68	82	69	.....	.....	80	72	74	70	74	67	76	69	83	62	85	68
12	64	58	74	65	75	65	72	62	.....	.....	78	66	84	65	.....	.....	87	71	83	70	76	68	87	70	82	61	86	70
13	64	55	79	60	82	64	82	62	.....	.....	82	62	86	62	.....	.....	88	72	85	65	80	67	86	70	84	62	86	67
14	62	56	83	56	84	57	79	61	.....	.....	83	60	86	61	.....	.....	87	72	84	68	78	67	85	69	86	64	89	70
15	72	59	70	60	84	60	81	61	.....	.....	76	59	82	59	.....	.....	87	65	86	64	80	67	87	64	83	60	87	66
16	66	53	63	48	76	47	70	55	.....	.....	67	50	70	51	.....	.....	69	58	74	55	69	57	73	55	76	59	74	57
17	68	49	64	40	77	39	70	50	.....	.....	68	45	70	43	.....	.....	75	54	73	41	72	58	73	50	75	58	75	50
18	71	51	70	43	72	41	60	51	.....	.....	65	44	58	48	.....	.....	63	58	64	48	68	59	64	59	65	55	66	59
19	66	53	72	51	73	53	72	54	.....	.....	74	56	76	57	.....	.....	70	56	73	56	68	59	72	57	68	58	77	58
20	65	53	72	45	75	48	64	55	.....	.....	73	52	76	58	.....	.....	68	63	73	61	65	58	73	62	71	57	76	64
21	66	50	70	45	74	44	69	50	.....	.....	76	48	76	52	.....	.....	73	62	73	59	69	58	72	63	75	55	74	60
22	62	55	76	50	74	55	71	59	.....	.....	80	56	81	58	.....	.....	84	65	81	58	78	65	83	61	78	58	84	61
23	60	54	68	58	77	59	71	60	.....	.....	74	58	78	59	.....	.....	84	65	82	66	76	64	84	63	74	55	82	62
24	66	54	60	53	74	54	70	57	.....	.....	65	51	71	56	.....	.....	76	62	73	55	72	62	74	60	73	54	75	58
25	74	52	72	47	78	48	88	60	.....	.....	78	53	87	57	.....	.....	90	66	83	59	75	65	87	65	84	50	88	65
26	61	48	65	40	80	41	60	56	.....	.....	68	56	72	58	.....	.....	76	60	76	62	75	66	76	63	83	62	85	67
27	68	54	66	52	73	53	75	55	.....	.....	71	54	75	54	.....	.....	82	58	82	62	82	61	81	58	72	53	78	57
28	66	48	61	47	73	46	72	50	.....	.....	69	50	71	47	.....	.....	74	53	70	40	69	58	71	50	68	44	70	51
29	63	50	58	44	66	51	68	52	.....	.....	62	48	69	50	.....	.....	74	55	73	56	69	61	72	55	70	48	72	54
30	58	46	56	44	66	44	60	49	.....	.....	57	50	60	44	.....	.....	67	49	66	42	64	55	66	47	68	40	66	48
31	62	45	61	43	64	36	63	47	.....	.....	65	43	65	38	.....	.....	64	49	65	35	64	53	66	46	65	40	66	45
Mns.	65.3	52.4	67.2	49.8	74.2	50.7	70.1	55.6	.....	.....	70.7	53.5	74.8	54.2	.....	.....	76.8	61.1	73.6	55.1	72.8	61.3	76.0	59.5	74.2	54.3	77.4	59.1

Date.	New Haven, Conn.		New York.												Pennsylvania.										Atlantic City, N. J.	
			Addison.		Albany.		Binghamton.		Indian Lake.		Little Falls.		New York.		Everett.		Harrisburg.		Philadelphia.		Scranton.		State College.		Wellsboro.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	77	60	75	45	74	57	68	47	67	34	70	45	78	61	72	50	74	61	79	62	72	55	71	50	73	48	78	64
2	78	57	75	48	76	52	73	52	70	38	75	47	77	61	70	47	74	57	79	64	77	51	71	50	72	44	76	62
3	74	57	69	49	71	58	64	53	69	49	63	53	73	57	68	52	71	55	74	59	69	56	66	50	68	48	74	59
4	74	55	69	46	72	56	65	47	61	45	67	56	75	57	68	44	72	53	76	58	69	51	66	48	70	43	71	58
5	74	54	72	44	76	52	69	46	69	40	70	50	74	58	72	48	74	54	77	59	73	47	71	47	72	39	75	58
6	76	55	78	44	78	52	74	44	67	40	75	49	75	59	73	45	75	53	79	62	76	47	73	46	75	42	74	58
7	79	56	80	52	77	54	77	49	75	42	74	51	77	61	78	51	78	60	79	62	78	57	78	55	79	42	75	64
8	77	59	77	64	79	61	76	59	71	50	76	58	73	64	77	54	78	60	80	63	77	58	79	61	77	53	77	68
9	77	64	77	63	79	67	71	66	70	57	73	63	74	67	78	65	75	68	81	69	74	67	77	60	74	59	78	71
10	78	69	80	68	79	69	73	64	72	58	72	62	76	68	81	66	82	69	82	70	78	69	80	61	80	64	78	72
11	81	68	80	62	85	68	83	63	80	59	84	63	82	68	82	56	84	67	88	72	83	66	80	60	78	56	80	72
12	86	70	79	61	84	69	80	64	75	60	78	64	83	70	80	60	81	67	86	72	81	65	78	61	79	60	86	71
13	84	67	88	58	87	68	85	61	82	50	87	59	86	70	85	61	84	67	90	72	86	63	83	62	84	57	82	70
14	89	69	88	64	86	70	84	61	80	57	86	67	87	71	83	65	84	68	88	72	84	65	80	67	85	66	90	71
15	86	67	82	56	82	62	77	56	77	46	76	56	84	69	79	53	83	69	85	72	79	58	78	61	80	53	86	69
16	75	59	75	53	71	55	69	48	67	33	70	49	75	62	77	64	78	61	79	65	72	54	74	52	76	47	75	64
17	72	52	73	42	72	48	74	42	79	38	74	42	73	63	78	51	74	58	74	62	76	48	73	49	77	41	74	62
18	76	61	85	63	65	59	82	61	65	44	64	54	82	65	88	62	89	69	87	65	82	63	84	49	84	63	82	66
19	74	61	78	64	76	60	73	65	70	53	71	58	82	68	85	64	87	72	86	72	78	67	86	65	80	64	86	72
20	71	65	80	62	81	65	75	62	72	49	76	40	81	68	80	66	81	71	81	71	76	62	78	66	77	66	84	69
21	72	62	84	57	73	58	78	57	70	45	67	53	78	68	77	66	81	66	85	69	80	57	75	64	81	56	78	68
22	83	64	83	54	83	62	80	56	75	50	82	60	83	69	82	59	83	66	86	73	83	58	80	64	83	53	82	73
23	83	63	72	56	73	60	72	57	70	55	69	58	78	65	74	60	76	64	81	68	72	60	72	60	74	57	86	65
24	77	60	80	53	77	59	74	54	67	45	70	48	77	62	80	54	81	60	81	65	77	56	77	52	79	51	77	62
25	88	65	90	59	88	68	87	65	78	55	82	60	86	67	87	49	87	65	87	67	85	62	85	54	88	58	79	70
26	82	69	85	63	84	67	81	64	79	53	83	64	89	72	81	50	83	67	88	71	86	64	80	66	83	59	83	69
27	79	58	77	56	77	57	64	48	78	52	74	56	76	59	78	61	77	62	80	59	73	52	78	57	79	59	82	60
28	70	54	64	43	72	51	62	43	63	33	68	47	69	56	67	44	66	54	70	56	65	45	72	49	62	39	69	53
29	74	57	74	52	74	54	68	50	61	49	67	54	74	59	68	54	74	56	77	61	69	54	71	44	71	51	71	60
30	70	50	73	44	68	47	62	43	59	38	63	38	69	54	73	47	71	55	73	57	66	48	70	47	69	41	73	55
31	65	46	62	47	64	43	57	40	60	30	61	38	65	53	77	59	70	57	66	55	60	45	71	54	65	51	68	54
Mns.	77.5	60.4	77.5	54.3	76.9	59.0	73.4	54.4	70.9	46.7	73.1	53.6	77.8	63.6	77.4	55.7	78.3	62.3	80.7	65.3	76.0	57.1	76.0	55.8	76.6	52.6	78.4	64.8

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 1*—Continued.

Date.	New Jersey.								West Virginia.		Maryland.								Millsboro, Del.		Washington, D.C.		Virginia.					
	Bridgeton.		Hightstown.		Phillipsburg.		Sussex.		Martinsburg. §§		Baltimore.		Darlington.		Frederick.		Westernport.						Fredericksburg.		Staunton. §§		Woodstock.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	81	62	82	60	79	58	78	57	77	59	79	63	78	59	80	59	76	54	79	62	78	62	77	61	77	55	77	56
2....	83	56	83	51	80	51	79	46	81	53	80	61	76	55	81	54	74	50	79	58	80	59	80	58	80	48	80	50
3....	75	56	77	54	72	54	72	53	71	55	72	60	72	62	73	56	74	49	76	58	70	59	74	57	64	58	81	51
4....	78	53	78	49	76	50	74	48	78	49	74	58	74	53	76	49	73	47	75	58	73	54	73	52	74	44	74	48
5....	80	51	79	46	77	48	75	44	79	47	78	57	76	52	78	47	75	45	77	56	76	54	74	52	76	47	78	46
6....	81	53	81	49	79	49	79	45	78	49	77	58	76	50	79	50	72	48	79	55	76	53	76	53	77	52	76	50
7....	81	54	81	52	80	53	78	50	83	54	79	62	77	51	83	51	80	54	88	58	80	58	80	54	83	53	84	56
8....	82	58	83	51	83	55	78	51	84	56	79	65	80	58	82	56	77	59	82	59	83	59	83	56	77	55	79	56
9....	84	65	81	67	78	65	76	63	87	62	79	72	76	67	83	69	86	63	78	68	81	72	82	69	82	65	86	66
10....	86	70	85	67	78	68	77	66	87	67	83	70	83	69	88	71	85	60	81	72	86	69	85	71	85	63	88	65
11....	93	68	92	67	88	66	85	63	90	60	89	68	84	62	89	62	87	58	82	72	89	65	88	60	87	60	88	68
12....	91	67	90	63	84	64	85	.....	85	67	86	72	83	65	87	65	89	60	85	74	87	71	87	66	86	68	91	62
13....	95	66	94	64	88	64	87	61	86	65	88	71	88	64	88	65	88	63	91	69	89	67	91	65	86	69	89	62
14....	93	68	93	67	87	67	90	65	94	68	87	74	86	67	89	67	89	66	88	69	87	70	91	67	89	68	86	66
15....	90	69	88	61	86	63	82	57	89	64	85	73	88	69	86	68	86	62	83	65	83	70	86	69	90	64	90	65
16....	85	62	82	53	79	56	77	50	84	60	82	68	80	60	83	61	85	57	86	63	84	66	81	66	84	62	87	59
17....	80	62	79	52	79	53	76	45	80	59	80	64	78	59	80	58	78	54	80	63	82	63	88	68	81	58	82	56
18....	90	65	89	64	87	63	85	61	92	60	92	71	89	60	92	67	92	61	88	62	92	73	91	71	94	70	96	66
19....	92	71	89	67	86	66	79	64	92	68	89	72	85	70	92	70	88	71	88	74	92	70	94	67	92	68	92	66
20....	86	71	84	69	82	64	81	65	85	69	85	74	81	67	87	70	84	68	84	71	85	71	88	69	90	68	93	67
21....	90	65	84	59	83	61	79	57	89	68	89	73	85	64	89	68	80	64	86	70	90	68	91	67	82	65	90	64
22....	90	68	88	62	87	63	83	.....	90	65	89	72	86	65	90	67	88	60	88	67	89	73	89	69	87	63	92	62
23....	88	67	87	67	77	60	77	64	80	66	82	70	78	64	82	65	78	62	82	67	81	71	86	68	82	67	83	63
24....	87	58	83	54	80	56	78	54	87	58	85	65	82	57	86	57	88	53	82	60	87	60	88	54	87	55	90	52
25....	93	66	90	62	88	60	88	61	92	59	89	68	87	64	91	61	91	58	88	64	91	67	91	61	93	62	95	60
26....	91	67	92	63	89	64	89	65	89	63	89	72	88	64	88	65	89	61	90	67	90	68	89	68	91	64	93	61
27....	85	68	83	63	75	55	81	61	82	66	82	65	78	65	80	66	78	66	85	70	82	60	87	66	88	66	85	65
28....	75	47	72	44	70	47	70	45	79	52	75	57	70	48	75	49	73	47	76	63	74	53	79	54	79	50	82	49
29....	78	62	78	55	76	54	73	55	72	52	77	64	75	59	73	60	77	60	75	52	77	61	87	63	88	65	85	62
30....	72	49	73	45	73	52	67	48	79	52	76	59	73	49	78	51	82	55	76	56	77	59	77	64	83	59	78	58
31....	72	51	66	42	61	45	60	40	80	55	72	62	68	56	78	61	94	60	71	58	78	63	83	63	92	62	90	63
Mns..	84.7	61.8	83.4	57.7	80.2	57.9	78.6	55.3[b]	83.9	59.6	82.2	66.5	80.0	60.5	83.4	60.8	82.5	57.9	82.2	63.9	82.9	64.0	84.4	62.9	84.1	60.4	85.8	59.4

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 2, SOUTH ATLANTIC AND EAST GULF STATES.

CHARLES F. VON HERRMANN, District Editor.

GENERAL SUMMARY.

A period of decidedly cool weather prevailed over most of the district during the first decade of August, 1912. At a number of places in the Carolinas, Virginia, and northern Georgia unusually low minimum temperatures were registered, especially from the 4th to 7th. A change to moderately warmer weather took place about the 10th and thereafter the temperature rose steadily until the hottest weather for the summer was experienced at many places toward the close of the month. The deficiency in temperature during the first decade was so far balanced by the warmth of the latter portion of the month that the State averages and the mean temperature for the district at large show but slight departures from normal conditions.

Over most of the district, except in Alabama and Mississippi, the month was comparatively dry, especially so in the Carolinas and Virginia. The deficiency in precipitation for these three States averaged over 3 inches, and toward the close of the month drought of some severity was prevailing at a number of stations. In the Carolinas the current month was the driest August on record with one exception. Nevertheless showers were generally frequent in all sections, the precipitation was fairly well distributed, and thunderstorms were numerous. As a rule the amount of sunshine was greatly in excess of the normal in northern portions of the district and below normal in the Gulf States.

No very distinct barometric depressions influenced the weather during the month, the distribution of atmospheric pressure presenting the usual indefinite features characteristic of the summer months. The maximum pressure for the month was 30.26 inches at Richmond, Va., on the 7th, but it was generally highest elsewhere on the 13th. The lowest atmospheric pressure occurred in all sections on the 21st or 22d, during the passage of a storm across the Lakes, the minimum being 29.62 inches at Lynchburg, Va.

TEMPERATURE.

Monthly mean temperatures slightly below the normal predominated at most interior stations, especially in the mountainous portions of the district, while along the South Atlantic coast from Wilmington, N. C., to Miami, Fla., they were somewhat above the normal. The mean for the entire district was 78.7° and the departure −0.3°, and the State means ranged from 74° for the Virginia area to 81.5° for Florida. During the cool spell at the beginning of the month temperatures lower than ever before recorded during the first decade of August occurred at a number of stations in Virginia, the Carolinas, and northern Georgia. This was the case at Raleigh, Charlotte, Pittsboro, Moncure, and Chapel Hill, in North Carolina; at Rome and Gainsville, in northern Georgia; and at several stations in the mountainous portions of Virginia, where unprecedentedly low summer temperatures were registered, a minimum of 32° occurring at Hot Springs and 33° at Catawba, Va.

After the 10th a steady rise in temperature took place, and periods of very warm weather prevailed in the north on the 13th and 14th, and 19th to 21st, and in the south on the 19th to 22d and 31st. In the Gulf States the warmest days of summer occurred on the last days of the month or early in September. Maximum temperatures of 104° occurred at Elizabeth City, N. C., on the 13th and at Saluda, S. C., on the 20th, and in the Gulf States the highest temperatures ranged from 99° to 101°. The monthly mean temperatures at individual stations ranged generally between 75° and 82°, but were lower in the north. The highest monthly mean was 83.8° at Lucerne Park, Fla., the lowest 62.6° at Hot Springs, Va.

PRECIPITATION.

The only feature of importance with respect to precipitation that may be singled out this month was the prevalence toward the close of rather severe drought at many stations in Virginia and the Carolinas. The average precipitation and departures from the normal for the three northern States are: Virginia, average 1.97 inches, departure −2.91; North Carolina, 2.68 inches, departure −3.41; and South Carolina, 3.69 inches, departure −2.86. In North Carolina only August, 1896, was somewhat drier, in South Carolina only August, 1900, was drier. Over the central portion of Virginia and the central and northeastern portions of North Carolina the total rainfall for the month was under 2 inches, with minimum records of only 0.35 inch at Catawba, Va., and 0.40 inch at Edenton, N. C. Nevertheless the showers were frequent though light, and as much of the rainfall occurred at night when evaporation is diminished, the moisture was utilized by vegetation to the best advantage and the resulting damage to crops was not excessive.

The region of heaviest rainfall was in southwestern Georgia, southeastern Alabama, and western Florida, where amounts of over 10 inches fell at a few places. The greatest total was 14.09 inches at Apalachicola, Fla., followed by Alaga, Ala., with 11.25 and Bainbridge, Ga., with 10 inches. In Alabama and Mississippi the rainfall was from one-half to nearly an inch above normal. The most general rains occurred from the 8th to 10th, though heavy local rains occurred on various dates; the maximum fall being 4.17 inches in 24 hours on the 11th to 12th at Hazelhurst, Miss., followed by 4.10 at Eufaula, Ala., and at Poulan, Ga., on the 3d. The weather was generally fair from the 27th to the close of the month. The average rainfall for the entire district was 4.25 inches and the departure −1.46 inches.

MISCELLANEOUS PHENOMENA.

The prevailing winds were from the southwest in every State in the district. The wind movement was small, the average hourly velocity exceeding 10 miles only at Cape Henry, Hatteras, and Pensacola. The highest velocities registered were: Cape Henry, 44 miles from the west, on the 19th; Richmond, 40 miles from the south, on the13th; and Hatteras, 42 miles from the southwest, on the 23d. The average number of clear days for the district was 13, ranging from 11 for Georgia and Alabama to 16 for the Carolinas; average number of partly cloudy days, 12; cloudy days, 6; days with appreciable rainfall, 10. Several deaths by lightning were reported and some damage by local storms occurred.

Earthquake shocks were distinctly felt in Arvonia, Bremo, and New Canton, Va., and the surrounding country, at 8 o'clock sharp on the evening of August 7, 1912, lasting about 30 or 40 seconds.

South Carolina.—The town of Clover, close to the northern border of the State was visited by a destructive windstorm on August 3. One life was lost, several persons were injured, and considerable damage to property resulted. The main loss was the complete destruction of the mills of the Clover Manufacturing Co., and there was also much damage to crops.

Georgia.—Macon: On August 18, while crossing a street, Mrs. N. A. Cranford and her 5-year-old granddaughter were killed by lightning and N. A. Cranford fatally injured. Savannah: On August 1 a man named Taylor Winters was killed by lightning while at work at the city phosphate works. On the 27th an electrical storm of marked severity occurred, during which the power house was struck by lightning and street-car traffic suspended for more than an hour.

RIVER CONDITIONS.

All the rivers of Virginia and North Carolina, and most of those in South Carolina, remained low during August, the range in flow from the beginning to the end of the month hardly exceeding 3 feet, while the mean stages ranged from 2 to 7 feet below the normal for August. The Tar River in eastern North Carolina fell to 2.6 feet at Greenville on the 14th, which is 0.2 feet below the previous lowest record. The Neuse River, at Kinston, was remarkably low, the river consisting of a series of pools. Small craft were high and dry near the banks and steam navigation was entirely suspended. The Waccamaw River at Conway, S. C., gave the lowest mean stage for August on record, with the exception of August, 1911, when the stage was the same. River conditions in the Gulf States were more nearly normal, and the water was sufficient to permit navigation of the lower course of the rivers during the greater part of the month.

MAMMATO-CUMULUS CLOUDS.

By JAMES H. KIMBALL, Observer.

Mammato-cumulus clouds, as nearly perfect in form as those illustrated in the June number of the Monthly Weather Review, were seen at Richmond, Va., during the afternoon of August 27, 1912. When first observed, at 3.15 p. m., the characteristic formations were not readily separated by the eye from the rounded balls which then constituted most of the strato-cumulus bank, all portions being of a grayish tint and without strongly marked shadows. A moderate thunderstorm had prevailed a short time before and the peculiar cloud formation appeared near its retreating edge. The storm, as observed here, was unusual only in the direction it pursued, coming as it did from the northwest and passing north of the station on its way down the James River Valley. It was preceded by violent gusts of wind from the north and caused a light sprinkle of rain, an insignificant electrical display, a sharp fall in temperature, and a well-marked rise in pressure. After crossing the meridian of the station the disturbance abated, little movement of the clouds being distinguishable and under these conditions the first view of the mammato-cumulus was obtained. They remained in the northeastern sky for fully half an hour, extending their area gradually and at the same time becoming more symmetrical and beautiful in form. As the development proceeded the protruding portions became more distinct by increase in size and density, giving deeper shadows which brought into bold relief those farthest east, and giving to some an outline that readily suggested an incipient tornado cloud.

This account is offered in corroboration of the statement made by Mr. Twyford in the above-mentioned number of the Review, where he says that great damage was done by a cyclone 20 miles away and in the direction from which the cloud came. In Virginia a similar phenomena occurred that agrees fairly well in both distance and direction from the cloud. From accounts received at this office it is learned that a terrific wind and hail storm occurred on the afternoon of the 27th at Vinita, on the James River, 15 miles west and a little north of Richmond, near which place the storm wrought havoc to crops.

TABLE 1.—*Climatological data for* ***August****, 1912. District No. 2, South Atlantic and East Gulf States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Virginia.																				
Arvonia	Buckingham	350	8	74.6	− 0.6	94	13†	50	6	33	3.34	− 1.68	1.10	0	10	7	22	2	nw.	Rev. Plummer F. Jones.
Ashland	Hanover	221	21	75.4	− 0.4	96	19	52	6	33	0.62	− 3.71	0.18	0	5	0	31	0	sw.	E. L. C. Scott.
Buchanan	Botetourt	820	8								1.37	− 2.53	0.68	0	8					D. D. Booze.
Callaville	Brunswick	250	18	76.9	+ 1.0	97	14†	51	6	36	2.42	− 2.83	0.90	0	8	23	8	0	w.	F. M. Gage.
Cape Henry	Princess Anne	20	38	75.8	− 1.1	95	13	58	6	22	2.43	− 3.67	1.20	0	7	15	11	5	sw.	U. S. Weather Bureau.
Catawba	Roanoke	1,760	1	66.2	.....	89	31	33	7	43	0.35	.....	0.35	0	1	24	6	1	w.	State Board of Health Sanitarium.
Charlottesville	Albemarle	800	23	75.6	+ 1.3	97	18	50	6	30	0.65	− 4.53	0.53	0	5	6	21	4	w.	Leander McCormick Obs.
Clarksburg	Mecklenburg	286	18								1.05	− 4.65	0.55	0	4					J. A. Ligon.
Columbia	Fluvanna	246	14	77.9	+ 2.1	92	13†	60	5	24	1.21	− 3.34	0.49	0	6	16	9	6	se.	Chesapeake & Ohio Ry.
Danville	Pittsylvania	413	12								0.83	− 4.13	0.45	0	2					C. G. Watkins.
Diamond Springs	Princess Anne	25	2	76.2	.....	98	19	54	6	26	2.18	.....	0.55	0	10	7	23	1	.....	Va. Truck Experiment Sta.
Dry Bridge	Chesterfield	325	1								1.80	.....	0.65	0	5				.....	Dr. E. W. Magruder.
Hampton	Elizabeth City	5	29	77.0	− 0.1	93	19	59	4†	20	3.75	− 1.24	1.11	0	9	10	13	8	e.	Normal & Agricultural Inst.
Hot Springs	Bath	2,195	20	62.6	− 6.1	85	14	32	2	43	2.44	− 0.91	1.11	0	8	23	8	0	.....	J. L. Beckley.
Ivor	Southampton	87	3	76.1	.....	96	14†	49	7	30	3.10	.....	1.15	0	6				.....	N. & W. Ry. Exp. Farm.
Lassiter	Goochland	100	2								3.35	.....	1.55	0	7	25	6	0	.....	T. J. Davis.
Lexington	Rockbridge	1,060	35	71.9	− 1.3	95	19†	48	2	42	2.00	− 1.40	1.15	0	9	16	7	8	.....	Virginia Military Institute.
Lynchburg	Campbell	685	41	75.2	+ 0.4	95	14	51	2	33	1.28	− 2.97	0.41	0	7	6	22	3	sw.	U. S. Weather Bureau.
Newport News	Warwick	55	9	77.0	.....	96	13	56	5†	26	2.82	.....	0.94	0	10	9	21	1	sw.	C. W. Ashby.
Norfolk	Norfolk	91	42	76.8	+ 0.1	96	19	58	4	24	2.12	− 3.85	0.57	0	11	12	15	4	s.	U. S. Weather Bureau.
Randolph	Charlotte	334	8								1.63	.....	0.61	0	5				.....	W. J. Abbitt.
Richmond	Henrico	144	33	76.4	− 1.1	97	19	55	5	31	1.49	− 2.92	0.55	0	9	10	14	7	sw.	U. S. Weather Bureau.
Roanoke	Roanoke	907	2	73.6	.....	93	31	50	2	31	0.63	.....	0.34	0	6	17	10	4	w.	Reese F. Bell.
Rocky Mount	Franklin	1,150	18	72.8	− 2.1	95	31	48	2	36	2.80	− 3.10	0.65	0	10				.....	G. W. B. Hale.
Ruckersville	Greene	625	1	73.2	.....	94	18†	44	5	36	3.02	.....	1.04	0	8				.....	Dr. Jesse Ewell.
Spottsville (near)	Surry	15	24	77.6	+ 2.5	98	19	54	7	32	1.66	− 4.03	0.54	0	7	12	13	6	sw.	B. W. Jones.
Williamsburg	James City	70	21	74.4	− 0.3	96	13†	52	5	32	2.85	− 2.14	1.60	0	6	24	5	2	se.	Eastern State Hospital.
North Carolina.																				
Albemarle	Stanly	700	....	76.8	.....	98	31	51	6	33	2.68	.....	1.19	0	8	20	9	2	sw.	M. J. Harris.
Beaufort	Carteret	10	11	78.8	− 1.0	87	2†	64	5	19	4.66	− 1.41	2.00	0	12	26	3	2	sw.	Lewis Radcliffe.
Belhaven	Beaufort	4	3	79.4	.....	95	14†	54	5†	29	2.87	.....	2.00	0	6	12	19	0	s.	A. L. Bell.
Brewers	Wilkes	1,950	15	72.8	− 2.0	95	31	49	6	34	3.57	− 3.01	1.91	0	13	13	17	1	w.	W. L. Brewer.
Caroleen	Rutherford	806	12	76.6	− 0.9	99	31	54	5	35	2.75	− 4.79	0.60	0	8	14	16	1	sw.	S. B. Tanner.
Chalybeate Springs	Harnett	500	6	77.2	.....	99	14	50	5†	34	2.44	.....	0.93	0	9	22	7	2	sw.	J. A. Smith.
Chapel Hill	Orange	500	54			103	31	51	6		1.70	− 3.47		0						Prof. A. H. Patterson.
Charlotte	Mecklenburg	773	36	76.4	− 0.2	95	31	55	5	24	1.87	− 3.68	0.45	0	10	6	17	8	sw.	U. S. Weather Bureau.
Chimney Rock	Rutherford	1,150	2	74.2	.....	95	31	53	5	31	3.18	.....	1.75	0	6	25	0	6	w.	J. M. Flack.
Durham (near)	Durham	406	3								0.66	.....	0.50	0	2					J. C. Michie.
Eagletown	Northampton	66	7	76.9	.....	98	14†	53	6	27	5.96	.....	2.77	0	7	18	12	1	sw.	J. T. Elliott.
Edenton	Chowan	30	18	79.8[b]	+ 1.5	98	13†	53	6	27	0.40	− 5.58	0.15	0	3	21	10	0	s.	E. R. Conger.
Elizabeth City	Pasquotank	8	....	79.7	.....	104	13	54	6	32	1.60	.....	0.70	0	3	24	4	3	sw.	W. J. Simmons.
Enfield (near)	Halifax	99	1								1.70	.....	0.46	0	8					T. S. Inborden.
Fayetteville	Cumberland	170	25	78.8	+ 1.1	97	14†	56	5†	28	2.64	− 4.13	0.87	0	12	23	2	6	sw.	Frank Glover.
Globe (near)	Caldwell	1,800	....	71.4	.....	91	31	50	5	31	1.30	.....	0.26	0	8	17	11	3	n.	Julius L. Gragg.
Goldsboro	Wayne	102	42	75.8	− 2.5	94	13	54	5	27	5.99	− 0.98	2.07	0	14				w.	Mrs. N. B. Taylor.
Graham	Alamance	656	10								0.79	− 5.67	0.30	0	7					Dr. W. R. Goley.
Greensboro	Guilford	843	31	75.6	− 1.0	93	14†	54	5	29	1.43	− 3.91	0.81	0	4				sw.	A. H. Horry.
Greenville	Pitt	75	19								3.78	− 3.24	1.73	0	13					R. M. Hearne.
Hatteras	Dare	11	38	77.9	− 0.3	89	20	67	4	21	2.80	− 3.04	1.04	0	10	9	18	4	sw.	U. S. Weather Bureau.
Henderson	Vance	508	19	77.8	+ 0.6	97	14†	53	5	26	1.29	− 4.96	0.79	0	5	13	18	0	nw.	Enoch Powell.
Kings Mountain	Cleveland	952	....	79.4[b]	.....	96	31	64	25	27										G. T. King.
Kinston	Lenoir	46	14	78.6	− 0.9	98	13	54	6	30	6.38	+ 0.14	2.29	0	10	13	12	6	sw.	H. C. V. Peebles.
Lenoir	Caldwell	1,186	39	74.0	+ 0.3	97	31	49	5	41	1.73	− 4.24	0.47	0	8	21	7	3	s.	G. M. Goforth.
Lincolnton	Lincoln	994	7	75.3	.....	99	31	50	6	35	1.26	.....	0.65	0	6				sw.	S. P. Houser.
Louisburg	Franklin	375	21	77.9	+ 0.8	100	14	52	5	37	1.49	− 4.21	0.50	0	8	19	7	5	sw.	T. B. Wilder.
Lumberton	Robeson	102	29	79.2	+ 0.3	99	14	54	6	32	3.82	− 2.43	0.82	0	13				sw.	B. M. Davis.
Manteo	Dare	12	7	77.4	.....	95	14	58	31	24	3.25	.....	1.04	0	6	18	7	6	sw.	U. S. Weather Bureau.
Marion	McDowell	1,425	20	72.4	− 2.6	93	31	51	5	32	2.96	− 3.25	1.21	0	15	14	15	2	w.	Sergt. Thomas McGuire.
Middletown	Hyde	4	1	77.1[d]	.....	92	14	55	5	23	2.41	.....	0.93	0	7					J. S. Mann.
Moncure	Chatham	145	18	76.8	− 0.8	100	14	46	5	37	2.93	− 3.20	1.06	0	9	13	12	6	sw.	B. J. Utley.
Monroe	Union	586	18	77.6	+ 0.9	99	31	50	6†	34	2.93	− 4.10	1.01	0	8	20	7	4	sw.	T. A. Ashcraft.
Morganton	Burke	1,135	25	74.2	− 0.6	96	31	53	2†	33	3.34	− 1.86	1.14	0	12	28	2	1	sw.	J. B. P. Massey.
Mount Airy	Surry	1,048	24	73.8	0.0	95	31	49	6	30	2.92	− 3.18	0.58	0	10	20	8	3	w.	Prof. A. H. Merritt.
Mount Holly	Gaston	616	15								4.11	− 1.87	2.15	0	6					J. W. Holland.
Nashville	Nash	190	8	78.2	.....	99	13	51	5†	35	2.67	.....	1.26	0	9	11	15	5	s.	J. B. Boddie.
Neuse	Wake	266	....								1.31	.....	0.68	0	6					Gaston H. Mooneyham.
Newbern	Craven	12	30	76.2	− 2.0	96	19	53	5	29	5.46	− 2.45	2.16	0	11				sw.	J. B. Hill.
North Wilkesboro (near)	Wilkes	1,700	....	73.5	.....	94	31	54	4	27	1.50	.....	0.75	0	2				w.	Dr. Charles A. Willis.
Parkersburg	Sampson	121	....	78.8	.....	99	14	53	6	32	5.25	.....	1.30	0	10	19	8	4	sw.	E. J. Conway.
Pinehurst	Moore	650	8	79.7	.....	99	21†	53	5	28	2.30	.....	0.80	0	7	12	8	11	w.	General Office.
Pittsboro	Chatham	480	20	77.7	+ 1.8	102	31	46	4	34	2.26	− 2.95	1.10	0	5	15	13	3	sw.	Mrs. J. F. Alston.
Raleigh	Wake	390	41	77.6	+0.8	96	19	56	5	25	2.86	−3.04	1.39	0	8	9	17	5	w.	U. S. Weather Bureau.
Randleman	Randolph	810	7								1.58	.....	0.86	0	5					J. R. Walton.
Reidsville	Rockingham	828	13	78.8	+3.1	100	31	55	4†	38	1.56	−3.49	0.56	0	11	8	16	7	se.	E. M. Redd.
Rockingham	Richmond	210	17	78.7[a]	−0.8	97	13†	56	5	31	4.90	−1.77	1.45	0	7					H. S. Ledbetter.
Rocky Mount	Nash	105	1								2.52		0.90	0	6					G. P. Womble.
Salem	Forsyth	1,000	17	75.4	−1.3	96	20	50	2†	37	1.97	−3.54	1.35	0	4					Rev. H. E. Rondthaler.
Salisbury	Rowan	750	28	77.9	+0.4	98	20†	50	6	35	0.65	−4.67	0.45	0	2	24	2	5	n.	Miss Thelma Wilkinson.
Saxon	Stokes	900	20	74.0	−1.5	95	14	50	6	33	1.54	−3.63	0.50	0	7	8	15	8	sw.	R. P. McAnally.
Scotland Neck	Halifax	80	8	74.4[d]	.....	95	14	51	6†	27	1.34	.....	0.48	0	8				sw.	J. Y. Savage.
Settle	Iredell	700	16	74.8	−1.6	95	14†	50	2†	36	2.17	−3.21	0.72	0	5	12	16	3	sw	C. H. Smith.
Sloan	Duplin	50	19	78.0[b]	0	98	31	55	5	34	4.26	−2.94	1.54	0	12	12	14	5	w.	D. M. Sholar.
Smithfield	Johnston	151	22	78.4	+0.3	98	19	52	5†	32	1.38	−5.20	0.56	0	12	19	7	5	sw.	Edwin S. Sanders.
Snow Hill	Greene	80	7	76.4	.....	93	13	52	5†	28	6.93	.....	2.81	0	10	7	21	3	s.	L. J. H. Mewborn.
Southern Pines	Moore	519	22								3.55	−3.74	1.35	0	7	22	6	3	.....	Mrs. P. H. Beck.
Southport	Brunswick	18	57	79.8	+0.1	92	21	63	5	18	1.82	−3.81	0.80	0	6	11	18	2	sw.	Mrs. C. E. Taylor.
Statesville	Iredell	950	24	75.0	−0.5	96	31	52	5†	31	1.36	−4.20	0.47	0	7	7	22	2	sw.	D. Matt Thompson.
Tarboro	Edgecombe	50	27	78.2	−0.4	98	14	53	5	30	4.63	−2.10	1.90	0	11	18	9	4	sw.	E. V. Zoeller.
Tryon (near)	Polk	1,300	....	76.4	.....	94	31	58	4†	24	3.39	.....	1.03	0	9	16	11	4	.....	W. T. Lindsey.
Weldon	Halifax	81	40	77.0	−0.2	97	14†	53	6	31	1.32	−4.13	0.76	0	8				s.	H. S. S. Cooper.
Whiteville	Columbus	59	7	78.8	.....	95	14†	56	6	27	2.46	.....	0.50	0	9	18	10	3	sw.	J. D. Maultsby.
Willard	Pender	51	4	78.6	.....	96	20	56	6	26	6.06	.....	2.35	0	10	20	8	3	s.	J. H. Jefferies.
Wilmington	New Hanover	52	41	78.8	+1.2	94	20		5	22	2.60	−3.91	0.79	0	11	7	22	2	sw.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for August, 1912. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Carolina.																				
Aiken	Aiken	565	27	79.2	−0.4	97	31	55	4†	29	4.72	−1.51	1.80	0	6	20	10	1	sw.	C. E. Carman.
Allendale	Barnwell	186	23	81.2	+0.8	99	31	62	5	27	3.33	−2.73	1.30	0	6	21	2	8	.....	Richard Hiers.
Anderson	Anderson	764	10	79.0	+1.3	101	31	57	6	32	2.11	−3.97	0.67	0	7	16	0	15	w.	H. H. Rusell.
Batesburg	Lexington	656	23	78.4	−0.4	94	19	60	5	28	6.07	+0.45	1.49	0	10	17	3	11	n.	E. J. Hite.
Blackville	Barnwell	296	22	81.0	+0.5	101	31	62	5	29	5.23	−0.65	1.42	0	12	13	8	10	sw.	Miss M. E. Lange.
Blairs	Fairfield	293	6	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.33	0	11	18	5	8	sw.	John R. Ragsdale.
Bowman	Orangeburg	160	10	79.6	+0.1	99	31	62	5†	31	6.70	+0.51	1.80	0	8	21	9	1	w.	B. O. Evans.
Broxton	Hampton	.....	1	.....	.....	.....	.....	.....	.....	.....	3.80	.....	1.76	0	5	22	3	6	.....	Thomas D. Williams.
Calhoun Falls	Abbeville	508	18	.....	.....	.....	.....	.....	.....	.....	3.13	−2.88	1.21	0	6	19	6	6	s.	L. M. Parker.
Camden	Kershaw	222	45	79.8	.....	100	31	61	13	34	2.96	−2.51	0.40	0	11	18	9	4	ne.	W. C. Brown.
Catawba	York	562	6	.....	.....	.....	.....	.....	.....	.....	4.24	.....	1.00	0	15	18	3	10	w.	James C. Faris.
Charleston	Charleston	48	41	81.2	+0.9	97	21	65	5	25	2.77	−4.20	1.19	0	11	10	11	10	sw.	U. S. Weather Bureau.
Cheraw	Chesterfield	144	23	77.8	−0.9	95	31	56	6	25	6.58	−0.01	1.10	0	15	16	5	10	w.	J. H. Powe.
Clemson College	Oconee	850	20	75.6	−2.5	90	31†	58	6	22	3.35	−1.36	1.50	0	11	13	13	5	w.	Prof. John N. Hook.
Columbia	Richland	351	25	79.4	−0.1	98	31	61	6	24	4.80	−1.98	1.56	0	8	6	17	8	sw.	U. S. Weather Bureau.
Conway	Horry	25	19	82.1	+3.0	101	31	61	5	28	1.76	−5.18	0.73	0	6	22	0	9	w.	Paul Quattlebaum.
Darlington	Darlington	175	16	78.1[c]	.....	96	31	54	6	29	4.81	−0.78	1.45	0	12	.....	.....	.....	.....	D. C. McCall.
Dillon	Dillon	100	7	79.6[b]	0	98	30†	57	6	29	2.28	−3.39	0.40	0	12	.....	.....	.....	.....	A. E. Rowell.
Edisto	Bamberg	127	24	.....	.....	.....	.....	.....	.....	.....	2.90	.....	0.89	0	6	22	2	7	.....	Nathan Jenkins.
Effingham	Florence	106	19	.....	.....	.....	.....	.....	.....	.....	2.75	−4.13	0.75	0	7	19	1	11	sw.	H. B. McCall.
Ferguson	Berkeley	51	3	79.9	+2.0	98	30	62	6†	26	4.15	−3.42	1.60	0	9	18	6	7	sw.	Dr. J. R. Des Portes.
Florence	Florence	136	23	79.6	−0.8	99	31	58	6	30	2.64	−3.04	0.78	0	10	12	12	7	sw.	H. K. Gilbert.
Georgetown	Georgetown	12	18	80.9	+0.7	96	14†	62	5	25	2.39	−4.64	1.10	0	7	9	22	0	.....	A. P. Hazard.
Greenville	Greenville	989	19	76.4	+0.7	99	31	54	6	33	2.65	3.82	0.99	0	9	18	5	8	w.	Spartan Goodlette.
Greenwood	Greenwood	671	23	79.0	+0.1	99	31	58	6	27	2.35	−3.30	0.44	0	8	21	0	10	w.	M. M. Calhoun.
Heath Springs	Lancaster	568	10	77.4	.....	98	31	54	5	29	2.66	.....	0.46	0	10	11	17	3	w.	Charlie Bowers.
Kingstree	Williamsburg	54	23	80.2	+1.5	98	31	59	6	28	4.93	−1.43	2.45	0	9	21	2	8	ne.	A. O. Matthews.
Liberty	Pickens	900	17	77.2	−0.4	97	31	56	6	31	1.76	−5.32	0.80	0	10	15	13	3	sw.	John T. Boggs.
Little Mountain	Newberry	711	18	80.0	+0.4	100	31	58	6	31	3.53	−2.07	1.78	0	6	26	2	3	sw.	J. M. Sease, M. D.
Meriwether	Edgefield	.....	2	79.0[b]	.....	100	31	60	6	30	4.83	.....	1.05	0	8	.....	.....	.....	.....	William S. Middleton.
Monetta	Aiken	.....	.....	78.9	.....	98	31†	60	5	28	4.53	.....	1.76	0	11	15	11	5	sw.	Joseph M. Johnson.
Newberry	Newberry	502	7	78.0[a]	−1.1	101	31	57	6	31	3.51	−2.16	1.03	0	8	3	22	6	w.	W. G. Peterson.
Pelzer	Anderson	873	6	.....	.....	.....	.....	.....	.....	.....	1.26	.....	0.60	0	4	18	0	13	w.	J. M. Ward.
Pinopolis	Berkeley	55	18	.....	.....	.....	.....	.....	.....	.....	3.11	−2.25	0.85	0	8	.....	.....	.....	.....	Miss E. P. Ravenel.
St. George	Dorchester	109	23	79.7	−0.1	97	31	63	5†	24	3.96	−2.64	0.81	0	8	24	0	7	.....	G. F. Lewis.
St. Matthews	Calhoun	209	23	78.6	−0.9	92	31†	60	5	19	6.64	+0.71	3.42	0	14	16	0	15	e.	J. S. Wannamaker.
Saluda	Saluda	530	9	80.6	.....	104	20†	58	7	33	3.20	.....	0.84	0	8	23	6	2	w.	Mrs. F. V. J. Maxwell.
Santuc	Union	572	16	80.2	+2.1	104	21	55	6	36	1.02	−4.71	0.36	0	6	7	21	3	w.	E. W. Jeter.
Smith Mills	Williamsburg	62	16	.....	.....	.....	.....	.....	.....	.....	3.35	−3.97	0.91	0	8	23	2	6	e.	W. G. Walker.
Society Hill	Darlington	75	14	77.6	−0.8	94	14	58	5†	26	3.45	−2.72	1.40	0	10	10	13	8	sw.	Maj. J. J. Lucas.
Spartanburg	Spartanburg	875	20	77.7[a]	−0.7	100	31	55	5†	31	1.82	−4.51	0.60	0	6	18	0	13	.....	F. P. Robinson.
Summerville	Dorchester	75	14	79.8	+0.7	97	31	62	5	24	4.90	−3.48	0.90	0	10	4	25	2	sw.	Miss E. H. Gadsden.
Trenton	Edgefield	620	18	78.8	−1.0	103	31	60	5	29	4.92	−1.89	1.52	0	10	14	13	4	w.	C. A. Long.
Walterboro	Colleton	69	7	82.0[a]	.....	102	31	62	6†	31	6.75	.....	2.25	0	14	21	9	1	.....	B. Levy.
Winnsboro	Fairfield	545	21	78.4	+0.2	97	31	58	6†	26	3.53	−2.51	2.00	0	7	14	16	1	sw.	J. W. Seigler.
Winthrop College	York	690	12	78.0	−0.5	99	31	56	5†	27	3.40	−2.65	1.30	0	5	3	27	1	sw.	E. R. Rivers.
Yemassee	Hampton	23	16	80.2	−0.3	99	31	63	6†	29	5.96	−0.82	2.65	0	12	20	3	8	.....	J. G. Hutson.
Georgia.																				
Abbeville	Wilcox	180	9	.....	.....	.....	.....	.....	.....	.....	6.57	.....	1.91	0	12	.....	.....	.....	w.	W. H. Calhoun.
Adairsville	Bartow	772	20	77.0	−0.8	93	20†	57	2†	32	7.34	+2.99	2.30	0	6	15	10	6	.....	Mrs. R. C. Evins.
Albany	Dougherty	232	25	82.1	+0.1	96	6†	67	5	26	5.67	−0.43	1.15	0	15	18	5	8	sw.	George C. Brosnan.
Allapaha	Berrien	293	23	79.6	−0.9	95	31	65	5	24	6.18	+0.41	2.03	0	15	13	12	6	sw.	J. F. Rice.
Americus	Sumter	362	27	79.6	−1.4	100	31	62	5	33	5.50	+0.38	1.30	0	12	.....	.....	.....	w.	Mrs. Josephine Lamar.
Athens	Clarke	694	30	79.0	+1.8	99	30†	58	6	30	2.91	−2.31	1.55	0	5	15	10	6	w.	C. D. Cox.
Atlanta	Fulton	1,218	47	76.9	−0.3	91	31	60	5	23	3.70	−0.77	1.52	0	9	8	14	9	sw.	U. S. Weather Bureau.
Augusta	Richmond	180	66	80.0	0.0	98	31	65	5	23	6.14	+0.79	2.24	0	11	8	13	10	s.	Do.
Bainbridge	Decatur	119	20	79.9	−1.4	97	31	69	4†	26	10.00	+4.26	1.85	0	17	.....	.....	.....	sw.	Mrs. C. O. Wimberley.
Butler	Taylor	650	11	.....	.....	.....	.....	.....	.....	.....	5.97	−1.02	2.82	0	8	.....	.....	.....	w.	Mrs. M. F. Wallace.
Camak	Warren	613	20	80.9	+1.6	100	31	62	5	29	4.91	+0.67	1.30	0	8	4	12	15	.....	J. A. Chapman.
Canton	Cherokee	894	21	.....	.....	.....	.....	.....	.....	.....	6.59	+1.78	3.20	0	7	13	4	14	.....	G. W. Evans.
Carlton	Madison	557	13	.....	.....	.....	.....	.....	.....	.....	4.16	+1.80	2.06	0	5	.....	.....	.....	w.	M. C. Power.
Clayton	Rabun	2,100	18	73.6	−1.0	90	30†	53	6	27	5.52	−1.77	2.00	0	4	.....	.....	.....	w.	A. J. Duncan.
Columbus	Muscogee	262	24	81.0	+0.2	96	20	68	5	25	4.21	−0.80	1.23	0	14	.....	.....	.....	nw.	A. J. Land.
Concord	Pike	850	.....	77.7[a]	.....	93[a]	18†	60[a]	2	26	2.08	.....	0.90	0	6	.....	.....	.....	.....	C. T. Smith.
Covington	Newton	800	20	.....	.....	.....	.....	.....	.....	.....	1.90	−3.58	0.75	0	7	8	13	10	w.	Mrs. Sarah E. Cruse.
Dahlonega	Lumpkin	1,519	20	74.0	−0.7	91	31	56	2†	29	3.32	−2.98	1.74	0	10	8	20	3	nw.	Prof. B. P. Gaillard.
Diamond	Gilmer	2,020	20	72.0[a]	−1.1	88	28	52	5	28	5.56	−1.22	1.34	0	9	15	10	6	.....	R. A. Kimzey.
Dublin	Laurens	452	18	81.3	.....	101	31	63	5	30	2.52	−2.66	0.79	0	9	11	12	8	sw.	Mrs. M. E. Martin.
Eastman	Dodge	361	20	81.2	−0.3	99	31	63	5	28	3.77	−1.15	1.33	0	11	7	10	14	w.	Mrs. H. T. Bohannon.
Eatonton	Putnam	.....	8	78.8	.....	98	31	59	6	29	4.39	.....	0.97	0	11	.....	.....	.....	.....	Prof. W. C. Wright.
Elberton	Elbert	710	20	78.3	−0.4	99	31	59	5	28	3.45	−2.16	1.72	0	7	.....	.....	.....	.....	H. A. Roebuck.
Fort Gaines	Clay	166	24	81.0	+0.4	98	31	65	5	26	9.29	+3.60	1.19	0	12	.....	.....	.....	sw.	Miss Eva T. Graham.
Gainesville	Hall	1,254	33	75.0	.....	95	30†	55	2	32	6.79	+0.97	2.60	0	7	9	11	11	w.	W. C. Walker.
Gillsville	do	1,052	21	.....	.....	.....	.....	.....	.....	.....	5.25	−0.12	1.06	0	7	.....	.....	.....	w.	George W. Lichtenstine.
Glennville	Tattnall	.....	7	80.9	.....	96	31	65	5	21	3.90	.....	1.21	0	13	18	9	4	nw.	William C. Barnard.
Gore	Chattooga	.....	13	77.0	−0.1	96	31	56	2†	35	5.02	+0.02	1.42	0	12	.....	.....	.....	s.	H. M. Ponder.
Granite Hill	Hancock	.....	.....	79.2	.....	96	31	62	6	25	3.72	.....	0.57	0	13	.....	.....	.....	w.	George White, jr.
Greensboro	Greene	598	10	78.7	.....	99	31	61	5†	29	3.11	−2.26	1.44	0	5	15	5	11	w.	R. L. Caldwell.
Griffin	Spalding	975	23	78.5	+0.3	97	31	60	2†	35	3.50	−2.04	1.08	0	8	10	13	8	.....	J. M. Mathews.
Harrison	Washington	378	13	79.4	−0.7	95	31	64	5†	29	0.81	−5.27	0.40	0	4	.....	.....	.....	s.	C. L. Wood.
Hawkinsville	Pulaski	235	16	80.5	0.0	96	31	64	5	28	3.72	−2.70	0.76	0	12	.....	.....	.....	.....	R. H. Wood.
Lisbon	Lincoln	.....	5	80.1	.....	100	31	59	6	30	1.80	.....	0.52	0	7	.....	.....	.....	nw.	B. J. Du Bose.
Lost Mountain	Cobb	.....	12	76.4	−1.9	94	31	59	4†	27	3.17	−1.66	1.20	0	6	.....	.....	.....	w.	A. N. Mayes.
Louisville	Jefferson	259	20	79.6	−0.5	96	31	62	5	23	4.01	−1.23	1.96	0	11	.....	.....	.....	.....	J. C. Little.
Lumber City	Telfair	150	3	.....	.....	.....	.....	.....	.....	.....	4.49	.....	0.82	0	13	13	6	12	w.	Walter A. Hilton.
Lumpkin	Stewart	650	18	.....	.....	.....	.....	64	3†	.....	5.95	+0.44	2.39	0	7	.....	.....	.....	sw.	A. W. Latimer.
Macon	Bibb	370	31	79.7	−0.5	96	31	65	6	24	2.75	−1.81	0.71	0	12	6	14	11	s.	U. S. Weather Bureau.
Marshallville	Macon	500	19	80.2[b]	−0.1	98	30†	64	6	28	4.48	−0.45	1.83	0	9	6	17	8	e.	E. C. Bryan.
Milledgeville	Baldwin	276	24	80.3	+0.9	96	31	64	6	29	4.05	−0.97	0.98	0	11	.....	.....	.....	sw.	Prof. O. M. Cone.
Millen	Jenkins	158	24	82.7	+1.7	100	22†	63	5	28	8.23	+3.26	3.00	0	7	.....	.....	.....	sw.	M. G. McComb.
Montezuma	Macon	292	7	.....	.....	.....	.....	.....	.....	.....	6.52	.....	2.81	0	10	.....	.....	.....	sw.	J. C. Collins.
Monticello	Jasper	800	17	79.4	+0.2	97	30†	60	2†	31	3.02	−2.20	0.93	0	14	.....	.....	.....	.....	Miss Maude Penn.
Newnan	Coweta	959	23	78.0	−0.4	95	31	60	5†	29	5.20	−0.25	1.30	0	11	.....	.....	.....	s.	Mrs. Ida J. Milner.
Norcross	Gwinnett	1,078	2	.....	.....	.....	.....	.....	.....	.....	3.28	.....	1.26	0	11	11	14	6	.....	W. O. Medlock.

TABLE 1.—*Climatological data for August, 1912. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Georgia—Continued.																			
Point Peter	Oglethorpe	600	23	78.0	0.0	98	31	56	6	31	3.50	− 2.20	1.55	0	7	.....	.....	.....	sw.	C. M. Witcher.
Poulan	Worth	365	21	80.2	+ 0.1	98	31	65	5	27	8.05	+ 0.87	4.10	0	18	10	16	5	.....	C. T. Merritt.
Putnam	Marion	.....	12	.....	.....	97	31	62	5	31	6.91	+ 2.56	3.57	0	7	.....	.....	.....	s.	Mrs. J. M. Collum.
Quitman	Brooks	173	26	79.8	− 1.1	94	31	69	5†	23	6.36	− 0.05	2.46	0	11	.....	.....	.....	nw.	A. B. Jones.
Ramhurst	Murray	.....	19	74.6	− 2.5	90	31	57	2†	24	3.53	− 1.21	1.35	0	8	14	13	4	sw.	D. E. Humphreys.
Resaca	Gordon	657	18	.....	.....	.....	.....	.....	.....	.....	3.98	− 0.35	1.53	0	7	.....	.....	.....	sw.	D. A. Norton.
Rome	Floyd	576	53	78.0	− 0.8	96	30	55	4	33	3.53	− 0.35	0.82	6	10	16	5	10	s.	W. M. Towers.
St. George	Charlton	.....	5	80.4	.....	96	31	68	18†	26	7.86	.....	2.90	0	13	.....	.....	.....	sw.	A. N. Lund.
St. Marys	Camden	20	21	81.4	+ 0.6	98	20	69	5†	24	4.92	− 0.33	2.20	0	10	.....	.....	.....	se.	David C. Sterling.
Savannah	Chatham	65	61	80.5	− 0.5	97	31	64	5	22	8.27	+ 0.45	3.30	0	12	8	10	13	sw.	U. S. Weather Bureau.
Statesboro	Bulloch	253	12	82.2	+ 0.8	100	13†	63	5	30	4.73	− 1.35	2.31	0	12	.....	.....	.....	s.	W. C. Cromley.
Talbotton	Talbot	750	18	79.4	+ 0.4	97	31	62	2	33	5.79	− 0.04	1.30	0	10	.....	.....	.....	w.	Dr. E. L. Bardwell.
Tallapoosa	Haralson	1,150	13	75.7	− 2.2	94	31	54	6	34	5.60	− 1.04	1.60	0	9	14	3	14	s.	Frederick Ellison.
Thomasville	Thomas	273	30	80.4	− 0.4	95	16	68	5	24	7.12	− 0.86	1.27	0	16	3	14	14	sw.	U. S. Weather Bureau.
Toccoa	Stephens	1,050	26	77.4	+ 1.2	96	31	56	2†	36	5.42	− 1.24	1.28	0	8	.....	.....	.....	.....	Mrs. Alice N. Starke.
Valdosta	Lowndes	.....	7	81.0	.....	99	16†	68	5†	28	8.20	.....	2.00	0	11	.....	.....	.....	e.	Miss Annie L. Twitty.
Valona	McIntosh	10	14	81.3	+ 0.6	95	1†	69	5†	24	3.78	− 4.13	1.10	0	7	.....	.....	.....	se.	George E. Atwood.
Washington	Wilkes	630	21	79.7	+ 0.6	100	31	62	5†	26	3.30	− 1.94	1.95	0	5	14	5	12	sw.	Miss Ella B. Smith.
Waycross	Ware	131	23	81.3	− 0.3	97	12†	67	5†	28	5.75	− 0.43	1.87	0	18	.....	.....	.....	s.	Thomas Sasser.
Waynesboro	Burke	86	20	79.2	+ 0.1	98	19†	60	5†	32	4.50	− 1.26	1.20	0	8	11	10	10	w.	Mrs. H. W. Blount.
West Point	Troup	620	22	78.4	− 1.8	95	31	63	2	25	3.45	− 1.86	1.20	0	8	14	8	9	sw.	E. N. Dunn.
Woodbury	Meriwether	641	9	.....	.....	.....	.....	.....	.....	.....	4.66	.....	2.42	0	9	14	4	13	w.	E. T. Riggins.
Florida.																			
Apalachicola	Franklin	24	8	80.0	.....	92	20	72	27†	18	14.09	.....	3.09	0	15	4	24	3	sw.	G. H. Whiteside.
Arcadia	De Soto	61	11	82.3	+ 0.6	95	20	71	8†	23	5.57	− 4.01	1.83	0	19	12	19	0	e.	C. S. Bushnell.
Archer	Alachua	92	27	80.0	− 1.2	91	21†	70	18†	20	7.00	− 0.56	1.65	0	12	.....	.....	.....	.....	R. B. Hodgson.
Avon Park	De Soto	150	13	81.4	− 0.4	95	7	67	7	28	4.98	− 2.57	1.47	0	17	20	11	0	se.	William King.
Bartow	Polk	115	24	81.2	− 0.3	95	6†	68	9†	26	2.45	− 5.39	0.69	0	13	13	5	13	ne.	William Hood.
Bradentown	Manatee	10	28	80.6	− 0.6	91	7†	69	30†	21	6.45	− 2.80	2.20	0	9	7	22	2	nw.	H. H. Ten Broeck.
Brooksville	Hernando	126	19	81.4	+ 0.6	97	10†	68	30	27	5.83	− 3.72	1.22	0	14	12	14	5	w.	C. C. Peck.
Carrabelle	Franklin	10	13	.....	.....	96	.....	69	.....	.....	7.94	+ 0.51	.....	0	.....	.....	.....	.....	.....	J. J. Blomquist.
Cedar Key	Levy	10	23	82.0	+ 0.4	94	20	72	4†	18	11.75	+ 3.50	2.85	0	17	20	0	11	w.	J. B. Lutterloh.
Clermont	Lake	105	19	83.6	+ 0.9	100	20	70	9	27	3.85	− 4.13	1.20	0	8	2	29	0	e.	S. S. Fesler.
Crescent City	Putnam	.....	14	83.0	+ 1.3	97	11†	69	29	25	6.22	− 1.09	1.60	0	11	17	11	3	.....	J. B. Shiver.
De Funiak Springs	Walton	193	14	81.8[a]	+ 1.2	98	31	67	11	28	6.18	− 3.77	1.86	0	9	.....	.....	.....	sw.	R. W. Storrs.
De Land	Volusia	27	15	81.6[c]	+ 1.3	97	20†	67	12†	28	6.21	.....	2.15	0	...	5	24	2	se.	A. C. Haynes.
Eustis	Lake	56	21	81.9	− 0.3	97	31	68	29†	27	4.26	− 2.63	1.15	0	13	15	12	4	sw.	C. T. Smith.
Federal Point	Putnam	5	20	82.4	+ 1.4	98	20†	68	29	27	7.97	+ 0.67	3.43	0	12	14	16	1	e.	E. S. Hubbard.
Fenholloway	Taylor	75	5	80.6[a]	.....	96	31	70	1†	24	11.33	.....	2.50	0	13	0	26	5	sw.	J. Wigglesworth.
Fernandina	Nassau	10	19	80.8	+ 0.1	96	31	71	5†	23	6.27	+ 0.25	1.60	0	14	6	10	15	sw.	W. B. C. Duryee.
Fort Meade	Polk	125	23	82.3	+ 1.2	98	2†	67	22	30	3.53	− 5.87	1.55	0	5	19	11	1	sw.	G. L. Brodrick.
Fort Myers	Lee	12	40	81.5	+ 0.4	92	7†	70	23	18	4.52	− 3.67	1.58	0	6	23	8	0	s.	Miss M. M. Gardner.
Fort Pierce	St. Lucie	6	11	82.4	+ 1.8	95	1†	70	7†	23	5.42	− 1.01	2.00	0	8	12	17	2	e.	T. C. Nicholson.
Gainesville	Alachua	176	18	80.0	− 1.9	94	31	67	13	23	7.71	+ 0.78	1.41	0	20	23	2	6	se.	John Schnabel.
Grasmere	Orange	175	14	81.5	− 0.2	97	11†	68	9	26	4.42	.....	1.77	0	18	27	2	2	sw.	J. B. Escott.
Hilliard	Nassau	69	3	80.8	.....	97	31	68	5†	27	5.28	.....	1.68	0	7	11	11	9	.....	B. A. Tibbits.
Homestead	Dade	5	2	83.2	.....	96	28	69	20	25	5.85	.....	1.93	0	13	19	7	5	e.	W. J. Krome.
Hypoluxo	Palm Beach	9	16	.....	.....	.....	.....	.....	.....	.....	1.19	− 3.88	0.33	0	7	.....	.....	.....	.....	G. A. Angevine.
Inverness	Citrus	43	12	80.6	− 0.2	93	10†	66	29†	23	8.42	+ 0.47	2.47	0	13	0	21	10	sw.	W. H. Miller.
Jacksonville	Duval	101	41	81.8	+ 1.7	94	31	69	6	21	5.32	− 0.89	1.33	0	13	14	10	7	sw.	U. S. Weather Bureau.
Johnstown	Bradford	125	12	82.4	+ 1.1	97	31	70	1†	25	6.17	− 2.18	1.00	0	13	.....	.....	.....	.....	A. M. C. Brasch.
Key West	Monroe	14	41	83.6	− 0.2	90	24	71	13	18	1.69	− 3.00	0.49	0	7	5	22	4	e.	U. S. Weather Bureau.
Kissimmee	Osceola	65	19	82.8[a]	+ 0.6	98	24	70	8†	27	4.10	− 3.21	0.84	0	9	4	15	12	ne.	J. A. Simpson.
Lake City	Columbia	210	27	80.2	− 0.8	94	20†	69	22	23	6.54	+ 0.04	1.63	0	12	6	14	11	sw.	W. B. Knight.
Lucerne Park	Polk	.....	1	83.8	.....	95	2†	73	7	22	3.05	.....	0.65	0	15	6	25	0	sw.	L. D. Niles.
Macclenny	Baker	125	15	81.6	− 0.2	97	19†	67	19	30	3.00	− 3.92	1.15	0	9	11	15	5	.....	Griffing Bros. Co.
Madison	Madison	200	12	81.5	0.0	96	19†	70	22	23	5.84	− 1.05	1.49	0	17	11	3	17	ne.	E. J. Vann.
Malabar	Brevard	24	18	82.2	+ 0.3	96	4	70	8†	25	2.50	− 2.15	0.90	0	9	20	9	2	se.	J. F. Farley.
Marianna	Jackson	80	9	80.4	− 0.7	95	20†	60	29	29	7.07	+ 1.67	1.93	0	17	16	7	8	sw.	W. J. Watson.
Merritts Island	Brevard	20	29	81.6	+ 0.1	92	21	70	7	19	4.49	− 0.91	0.93	0	17	0	30	1	se.	F. Ulrich.
Miami	Dade	47	10	83.2	+ 1.2	91	1	69	29	21	2.93	− 4.67	0.99	0	11	3	19	9	se.	U. S. Weather Bureau.
Middleburg	Clay	10	11	81.1[d]	+ 0.4	97	31	66	19	30	3.64	− 3.45	0.94	0	10	.....	.....	.....	.....	G. A. Chalker.
Molino	Escambia	49	10	81.4	+ 0.7	97	19†	66	6	27	3.50	− 4.55	0.95	0	6	13	14	4	w.	W. H. Trimmer.
Monticello	Jefferson	207	8	81.4[d]	.....	98	11†	69	22†	26	5.95	.....	0.97	0	18	9	5	17	.....	G. B. Miller.
Mount Pleasant	Gadsden	260	6	79.4	.....	96	18	65	29†	29	8.50	.....	2.40	0	17	.....	.....	.....	sw.	Miss Addie Grubb.
New Smyrna	Volusia	9	27	80.8	+ 0.9	96	21	69	7	23	5.65	− 0.35	0.96	0	14	6	15	10	s.	F. Nordman.
Observation Island	Palm Beach	.....	...	83.6	.....	93	8	71	16	19	2.82	.....	0.84	0	8	.....	.....	.....	e.	F. K. Armstrong.
Ocala	Marion	98	22	80.2	− 1.1	95	20†	69	9†	24	5.16	− 2.66	2.00	0	7	12	16	3	sw.	J. C. Caldwell.
Orange City	Volusia	39	18	81.2	− 0.9	100	21	66	8	29	6.87	− 0.01	1.94	0	14	11	18	2	sw.	J. D. Graham.
Orlando	Orange	111	19	81.9	− 0.1	93	2†	70	9	21	7.72	+ 0.36	2.57	0	13	2	21	8	e.	James Thomson.
Pensacola	Escambia	149	32	80.1	− 0.9	91	20	69	27	20	5.24	− 1.92	1.80	0	15	4	16	11	sw.	U. S. Weather Bureau.
Pinellas Park	Pinellas	20	1	82.4	.....	94	10†	72	11†	22	4.96	.....	1.73	0	9	18	12	1	s.	R. H. MaWhinney.
Plant City	Hillsboro	121	18	80.4	− 0.9	92	7†	70	15	20	3.62	− 6.13	0.86	0	11	11	20	0	s.	E. B. Trask.
Rockwell	Marion	10	10	81.6[d]	0.0	96	31	70	6†	25	9.64	+ 0.29	2.03	0	.....	.....	.....	.....	sw.	Dunellon Phosphate Co.
St. Andrew	Washington	14	15	81.2	− 0.6	94	14†	70	1†	23	8.81	+ 0.34	1.23	0	18	.....	.....	.....	se.	W. A. Emmons.
St. Augustine	St. Johns	10	60	81.5[e]	+ 0.9	98	21	68[j]	24	25	8.28	+ 2.33	1.67	0	10	23	3	5	e.	E. F. Joyce.
St. Leo	Pasco	140	15	80.8	− 0.9	94	10	69	15†	24	4.38	− 5.47	0.81	0	14	8	19	4	w.	G. Schneider.
Sand Key	Monroe	.....	.....	82.2	.....	89	1	71	29	15	1.32	.....	0.39	0	9	4	20	7	e.	U. S. Weather Bureau.
Satsuma Heights	Putnam	98	4	81.0	.....	97	31	68	6†	27	8.06	.....	2.67	0	15	12	15	4	.....	Satsuma Co.
Switzerland	St. Johns	10	19	81.0	+ 0.7	94	20†	68	4†	25	3.35	− 3.38	1.28	0	7	.....	.....	.....	.....	Mrs. W. C. Steele.
Tallahassee	Leon	192	25	79.0	− 0.7	92	16	69	4	20	4.65	− 2.59	0.75	0	16	20	3	8	w.	W. H. Markham.
Tampa	Hillsboro	79	22	82.0	+ 2.0	94	10	69	11	25	4.93	− 3.66	1.81	0	11	7	20	4	ne.	U. S. Weather Bureau.
Tarpon Springs	Pinellas	20	27	81.9	+ 0.8	96	18	69	11	26	6.39	− 3.46	1.44	0	16	17	8	6	w.	A. P. Albaugh.
Titusville	Brevard	16	16	82.4	+ 1.4	97	21	69	6	25	10.00	+ 5.14	1.99	0	20	12	14	5	e.	F. M. Taylor.
Wausau	Washington	250	12	82.8[h]	+ 1.1	100	20	69[h]	25†	30	.....	.....	.....	0	.....	.....	.....	.....	.....	Curtis Jones.
Alabama.																			
Alaga	Houston	105	7	.....	.....	.....	.....	.....	.....	.....	11.25	.....	3.94	.....	14	.....	.....	.....	.....	James L. Willis.
Anniston	Calhoun	728	21	77.4	+ 1.0	94	31	60	2	28	2.74	− 1.74	1.03	0	12	7	14	10	s.	U. S. Weather Bureau.
Ashville	St. Clair	685	19	76.9	− 2.7	94	26	58	2	32	8.74	+ 4.74	2.57	0	13	16	8	7	.....	George R. Cather.
Auburn	Lee	732	30	79.6	+ 0.8	97	31	63	5	28	3.77	− 1.06	0.84	0	12	4	9	18	sw.	Dr. J. T. Anderson.
Bermuda	Conecuh	.....	25	80.0	+ 0.3	95	16†	65	6	25	4.77	− 0.57	0.72	0	16	9	21	1	sw.	M. J. Morris.
Birmingham	Jefferson	701	24	78.0	− 0.7	92	20	61	5	23	5.60	+ 1.12	2.86	0	13	11	14	6	s.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for August, 1912. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Alabama—Continued.																				
Calera	Shelby	500	11	.....	.....	.....	.....	.....	.....	.....	7.22	+ 2.87	1.50	0	13	.....	.....	.....	.....	L. G. Privett.
Camp Hill	Tallapoosa	738	11	78.0	− 1.7	97	31	61	2†	32	4.97	+ 0.85	2.37	0	5	.....	.....	.....	sw.	Dr. Lyman Ward.
Cedar Bluff	Cherokee	594	8	.....	.....	.....	.....	.....	.....	.....	3.65	.....	1.90	0	4	1	21	9	.....	Joseph L. Daniel.
Citronelle	Mobile	331	24	80.9	+ 0.4	96	17	67	5†	24	4.60	− 1.60	0.74	0	19	9	22	0	se.	Rev. W. H. Rowe.
Clanton	Chilton	590	19	79.2	− 0.2	98	31	62	2	31	4.46	+ 0.70	0.85	0	13	.....	.....	.....	.....	Joseph B. Downs.
Cochrane	Pickens	100	2	.....	.....	.....	.....	.....	.....	.....	6.18	.....	1.40	0	10	.....	.....	.....	.....	T. H. G. Cook.
Cordova	Walker	334	21	79.0	0.0	96	20	55	4	34	5.76	+ 1.12	1.81	0	9	17	0	14	e.	Scott Maxwell.
Cullman	Cullman	802	4	77.7	.....	95	31	57	5	28	3.40	.....	1.14	0	7	16	13	2	sw.	Eugene A. Grayot.
Dadeville	Tallapoosa	760	7	.....	.....	.....	.....	.....	.....	.....	2.95	.....	0.81	0	9	.....	.....	.....	.....	Dr. W. B. Fulton.
Daphne	Baldwin	.....	21	80.0	− 1.4	93	....	67	9†	23	4.72	− 3.26	1.30	0	11	4	23	4	sw.	John H. Young.
Demopolis	Marengo	.....	20	.....	.....	.....	.....	.....	.....	.....	5.17	+ 1.32	1.15	0	10	19	6	6	sw.	George E. Pegram.
Dothan	Houston	.....	...	80.2[d]	.....	94	...	67	5	22	.....	.....	.....	0	...	.....	.....	.....	.....	L. G. Biggers.
Eufaula	Barbour	200	28	76.9	− 3.0	91	21	63	26	23	10.06	+ 4.73	4.10	0	17	.....	.....	.....	.....	Dr. J. B. Whitlock.
Evergreen	Conecuh	285	28	82.2	+ 2.0	94	23†	70	6†	22	3.52	− 1.36	1.10	0	11	.....	.....	.....	.....	George W. Salter.
Flomaton	Escambia	91	20	81.8	+ 0.9	99	30	67	27†	29	1.91	− 4.67	1.03	0	9	15	9	7	s.	T. J. Farris.
Fort Deposit	Lowndes	520	28	80.2	+ 0.1	95	21†	65	5†	24	6.63	+ 2.55	2.70	0	6	.....	.....	.....	.....	J. F. Hattemer.
Gadsden	Etowah	621	28	78.6	− 0.4	94	20†	60	2†	30	8.10	+ 4.01	1.92	0	11	.....	.....	.....	.....	D. P. Goodhue.
Goodwater	Coosa	826	17	77.6	− 2.5	95	31	60	2†	29	6.54	+ 1.34	1.27	0	13	.....	.....	.....	.....	Miss Daisy Buice.
Greensboro	Hale	220	33	80.3	+ 0.7	95	31	64	5	22	2.30	− 2.34	0.93	0	8	.....	.....	.....	.....	W. E. W. Yerby.
Greenville	Butler	444	11	.....	.....	.....	.....	.....	.....	.....	9.78	+ 6.56	2.20	0	10	.....	.....	.....	.....	E. M. Lewis.
Hamilton	Marion	.....	16	78.9	− 0.9	96	31	55	5	33	4.16	+ 0.42	1.63	0	8	18	8	5	sw.	Prof. H. O. Sargent.
Healing Springs	Washington	362	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James E. Lipscomb.
Highland Home	Crenshaw	.....	20	80.0	+ 0.4	98	18	65	5	28	6.84	+ 2.10	1.58	0	10	7	16	8	w.	Prof. Samuel Jordan.
Livingston	Sumter	160	28	80.1	− 0.4	95	17	65	5†	23	4.62	+ 0.80	1.25	0	9	.....	.....	.....	.....	Robt. L. King.
Lock No. 4	Talladega	510	15	77.8	− 1.9	97	31	60	4	35	3.67	− 0.46	1.20	0	8	22	4	5	sw.	U. S. Engineers.
Maple Grove	Cherokee	.....	19	78.6	− 0.4	97	31	57	4	31	3.91	− 0.28	1.26	0	9	14	17	0	sw.	Mrs. A. L. Awbrey.
Mentone	Dekalb	1,595	5	.....	.....	.....	.....	.....	.....	.....	3.60	.....	1.60	0	4	.....	.....	.....	.....	E. Mason.
Milstead	Macon	.....	9	.....	.....	.....	.....	.....	.....	.....	5.45	.....	0.95	0	10	.....	.....	.....	.....	W. U. Hall.
Mobile	Mobile	84	40	81.0	+ 1.3	94	20	69	8	21	8.25	+ 1.44	2.98	0	17	6	19	6	sw.	U. S. Weather Bureau.
Montgomery	Montgomery	240	40	80.0	+ 0.3	95	31	65	5	23	4.58	+ 0.34	2.57	0	10	8	15	8	sw.	Do.
Newbern	Hale	.....	20	82.0	+ 0.4	100	21†	64	5	33	2.21	− 2.16	0.82	0	9	6	18	7	s.	Dr. J. Huggins.
Oneonta	Blount	857	18	76.8	− 0.9	93	20	57	2†	31	6.78	+ 1.64	1.52	0	17	11	1	19	n.	Aquilla J. Ketchum.
Opelika	Lee	917	33	78.4	− 0.8	94	20†	64	5	23	3.78	− 0.72	1.25	0	6	.....	.....	.....	.....	A. H. Read, jr.
Ozark	Dale	400	10	80.3	.....	97	14	65	6	29	7.25	.....	1.85	0	12	.....	.....	.....	.....	James A. Scott.
Prattville	Autauga	281	12	78.9	− 1.3	94	1	64	6	27	4.56	.....	1.15	0	11	11	20	0	.....	Joseph B. Bell.
Pushmataha	Choctaw	.....	21	79.0	− 1.7	93	...	61	5	23	5.04	+ 0.57	1.65	0	10	.....	.....	.....	.....	W. N. Horn.
Robertsdale	Baldwin	148	...	.....	.....	.....	.....	.....	.....	.....	7.25	.....	1.69	0	14	.....	.....	.....	.....	Carl Boseck.
Selma	Dallas	147	32	81.6	+ 0.6	98	20†	66	12	26	4.75	+ 0.37	0.96	0	11	.....	.....	.....	.....	Charles F. Brislin.
Spring Hill	Mobile	312	8	81.0	.....	96	17†	67	9	26	5.31	.....	1.30	0	12	.....	.....	.....	w.	Spring Hill College.
Talladega	Talladega	554	22	78.4	− 1.2	94	19	60	2	31	8.10	+ 3.32	2.90	0	8	13	10	8	nw.	W. E. Henkel.
Tallassee	Elmore	.....	21	.....	.....	.....	.....	.....	.....	.....	5.33	+ 0.54	1.98	0	10	.....	.....	.....	.....	P. A. Noble.
Thomasville	Clarke	385	21	79.6	− 1.1	95	19	56	12	32	7.77	+ 2.92	1.91	0	11	.....	.....	.....	.....	Miss H. T. Forster.
Troy	Pike	581	4	80.2	.....	97	31	67	5†	24	5.44	.....	1.08	0	14	2	25	4	s.	Frank L. Zimmerman.
Tuscaloosa	Tuscaloosa	230	31	80.4	− 0.3	98	20†	61	5	30	4.44	+ 0.62	2.00	0	9	16	0	15	s.	W. S. Wyman, jr.
Tuskegee	Macon	.....	12	80.6	− 1.2	98	31	64	5†	28	8.03	+ 5.04	1.90	0	10	0	25	6	s.	Prof. Geo. W. Carver.
Union Springs	Bullock	216	25	79.8	− 0.9	94	31	66	6	22	7.10	+ 2.30	1.51	0	12	.....	.....	.....	.....	P. L. Cowan.
Uniontown	Perry	273	26	80.8	+ 0.1	97	31	65	4	26	3.47	− 0.91	0.83	0	6	11	14	6	sw.	L. H. Moore.
Valley Head	Dekalb	1,031	27	77.2	+ 0.8	96	31	53	5	35	6.46	+ 1.71	2.55	0	7	14	13	4	.....	M. T. Floyd, M. D.
Wetumpka	Elmore	205	20	81.0	− 0.4	98	31	63	15†	27	5.72	+ 1.10	1.90	0	8	16	0	15	s.	United States Engineers.
Mississippi.																				
Aberdeen	Monroe	210	24	79.0	− 0.4	97	20	56	5	28	3.57	− 0.36	0.65	0	11	18	7	6	s.	L. D. Godfrey, jr.
Bay St. Louis	Hancock	28	19	82.0	+ 0.4	93	20†	69	5	22	7.89	+ 0.80	2.50	0	19	9	16	6	se.	Brother Stanislaus.
Bay Springs	Jasper	.....	...	80.9	.....	96	20†	57	5	33	1.10	.....	0.50	0	3	.....	.....	.....	.....	J. J. Johnston.
Biloxi	Harrison	24	21	82.0	+ 0.3	94	20†	69	5†	21	7.96	+ 1.12	1.96	0	15	14	9	8	sw.	Miss M. Josie Pope.
Booneville	Prentiss	504	18	77.6	− 1.6	93	20†	55	5	27	4.62	+1.48	1.61	0	9	7	22	2	s.	Dr. D. T. Price.
Brookhaven	Lincoln	500	24	81.0	− 0.2	97	17†	59	5	31	4.13	− 1.13	1.53	0	14	10	9	12	e.	W. J. Bee.
Columbia	Marion	110	8	.....	.....	.....	.....	.....	.....	.....	5.51	.....	1.87	0	13	17	8	6	sw.	N. R. Drummond.
Columbus	Lowndes	191	24	80.6	− 0.8	99	31	58	5	32	5.14	+ 0.88	1.56	0	12	21	1	9	se.	J. B. Love.
Crystal Springs	Copiah	168	20	80.4	− 0.5	96	26	57	5	31	6.45	+ 1.70	1.47	0	11	17	14	0	.....	D. H. Miller.
Edinburg	Leake	.....	4	79.8	.....	95	18†	54	5	32	6.79	.....	1.57	0	12	14	6	11	s.	J. Y. Blocker.
Enterprise	Clarke	248	7	.....	.....	.....	.....	.....	.....	.....	5.49	.....	1.80	0	10	.....	.....	.....	.....	J. B. Thompson.
Fulton	Itawamba	.....	3	.....	.....	.....	.....	.....	.....	.....	4.59	.....	1.52	0	11	16	4	11	sw.	A. L. Summers.
Hazlehurst	Copiah	460	22	80.4	− 0.4	95	20†	59	5	30	6.32	+ 2.17	4.17	0	11	8	10	13	sw.	J. D. Granberry.
Hickory	Newton	326	2	.....	.....	.....	.....	.....	.....	.....	2.36	.....	0.60	0	13	16	1	14	w.	T. N. McMullen.
Jackson	Hinds	280	25	81.2	+ 0.4	97	31	58	5	27	4.69	+ 0.41	0.98	0	15	16	3	12	s.	A. S. Nall.
Lake	Scott	446	24	79.3	+ 0.1	94	20†	56	5	29	2.72	− 2.08	0.78	0	10	15	2	14	sw.	Mrs. Eddie McNeel.
Laurel	Jones	241	8	81.3	.....	98	20	60	5	28	2.28	.....	0.72	0	9	23	6	2	se.	Thomas W. Flynt.
Leakesville	Greene	.....	18	81.0	− 0.6	97	18†	65	5†	27	6.03	− 0.04	1.40	0	11	.....	.....	.....	.....	Dr. Sam Pool.
Louisville	Winston	561	23	78.8	− 0.7	94	20†	54	6	33	8.51	+ 3.74	2.60	0	11	.....	.....	.....	.....	B. T. Webster.
McNeill	Pearl River	230	9	80.0	.....	94	16†	65	5	24	10.24	.....	1.75	0	19	2	29	0	se.	Prof. E. B. Ferris.
Macon	Noxubee	185	24	80.2	− 0.6	97	31	58	5	30	4.06	+ 0.15	1.35	0	8	21	3	7	w.	Finis E. Carleton.
Magnolia	Pike	415	16	80.2	− 1.2	96	21	61	5	27	3.96	− 2.48	1.67	0	13	3	20	8	s.	Miss Ruby V. Roberts.
Meridian	Lauderdale	375	22	79.4	+ 0.9	94	31	59	5	25	4.20	+ 0.65	1.41	0	11	5	20	6	sw.	U. S. Weather Bureau.
Merrill	George	76	7	.....	.....	.....	.....	.....	.....	.....	6.86	.....	1.80	0	16	14	5	12	ne.	Otto C. Tompkins.
Monticello	Lawrence	209	5	81.0	.....	96	20†	58	5	29	3.31	.....	1.05	0	14	7	22	2	se.	Dr. G. A. Teunisson.
Okolona	Chickasaw	311	24	80.4	− 0.6	99	21	56	5	30	6.59	+ 3.50	2.00	0	8	18	5	8	s.	E. J. Henson.
Pascagoula	Jackson	15	3	81.6[e]	.....	92	20†	70	5†	18	6.68	.....	..	0	9	.....	.....	.....	.....	McVey Young.
Pearlington	Hancock	10	24	81.1	+ 0.4	95	21	66	5	23	3.81	− 3.01	0.73	0	10	.....	.....	.....	sw.	Miss Annete Koch.
Shubuta	Clarke	197	7	.....	.....	.....	.....	.....	.....	.....	6.54	.....	3.70	0	9	.....	.....	.....	.....	George A. Floyd.
Tupelo	Lee	278	13	.....	.....	.....	.....	.....	.....	.....	5.82	+ 2.21	1.53	0	10	18	13	0	sw.	W. S. Vincent.
Waynesboro	Wayne	191	25	81.0	− 0.6	97	20†	60	5	30	6.08	+ 1.21	2.15	0	10	5	14	12	s.	R. S. Burke.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 2, South Atlantic and East Gulf States.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Virginia.																																	
Arvonia	James	.34		T.	.14					.56	T.	T.		.06		T.	.34		1.10	.38	.30	.06					T.		.06			3.34
Ashland	do	.16		T.	.14									.18	T.		.10			.04	T.			T.			T.	T.			T.	0.62
Buchanan ‖	do		T.		.88					.05	.20		.07							.12	.10	.68		.07								1.37
Callaville	Chowan				.58					.22				.40		.07			.90	.15	.06					T.		T.		.04		2.42
Cape Henry	Coast				.21									.07					.03	.41		1.20		.38				.13				2.43
Catawba	James										.35																					0.35
Charlottesville	do			.01						.53				.02	T.				.05								.04					0.65
Clarksville ‖	Roanoke				.35					.25					.10					.15							T.	T.				1.05
Columbia	James			.10						.49				T.				.07		.30	.20								.05			1.21
Danville ‖	Roanoke				.45	T.				T.	T.				.38												T.		T.			0.83
Diamond Springs	Coast		.06		.46					.11					.20				.05		.55		.27	.37		.05		.06				2.18
Dry Bridge	James				.60				.32							.65					.20	.03										1.80
Hampton	Coast				1.00					.50					.41	.03			.03	T.	1.11		.22				.02	.43				3.75
Hot Springs	James			.07										.02	.01				1.11	.04	.41						.14		.64			2.44
Ivor	Chowan				.35				.15	1.15	T.			.60					T.	.70		.15										3.10
Lassiter	James				.15									.10	.14	1.55				.55		.51						.35				3.35
Lexington	do	1.15			.03					.12	.17				.01				.02	.18		.27				T.		.05				2.00
Lynchburg	do			.13	.28					.01				.26				.15			.13						.32					1.28
Newport News	Coast		.08	T.	.40					.94				.36					.18	.50	.02	T.	.04		T.	.05	.25					2.82
Norfolk	do	.07		.06	.51					.26				.28					.04	.29		.03	T.	.20		.23		.15				2.12
Randolph	Roanoke	.10			.61					.23									.18								.51					1.68
Richmond	James			.01	.54					T.				.14	.12	.03	.03			.10	.50	T.						.02		T.		1.49
Roanoke	Roanoke			.05	.34				T.		.10	T.		.07					T.		.04			.03								0.63
Rocky Mount	do	.09		.05	.65					.24	.54			.40					.32		.25		.06				.20					2.80
Ruckersville	James									.68	.25			1.04	.05					.37							.04		.54		.05	3.02
Spottsville (near)	Chowan				.27				T.	.43				.54					.16	.06	T.		.14			.06	T.				T.	1.66
Williamsburg	James				1.60						.10			.05	.10	.20						.80						T.				2.85
North Carolina.																																
Albemarle	Pedee	.20		.05	T.					.05				T.		1.19			.70	T.	.11		.08			.30						2.68
Beaufort	Coast	.28	.05							.50					.10	.03	2.00	.05				.23		.72			.51		.02			.17	4.66
Belhaven	Pungo	.03				.04														2.00		.40	.20				.20					2.87
Brewers	Pedee			.52	.11					.21		1.91		.03	T.	T.	.13			.15	T.	.28	.04	.11	.02		.04				T.	.02	3.57
Caroleen	Santee	.60		.39	.46			T.	.40		.09								.03	T.		.37					.41						2.75
Chalybeate Springs	Cape Fear	.06			.15									T.	.03	.93			.05		.23	.09	T.				.53	.37					2.44
Charlotte	Santee	.22		.13	.06				.36	T.	T.			.09	.18	.23	T.		.07	T.		.08					.45	T.					1.87
Chimney Rock	do	.50		1.75	.25														.05			.60					.03					3.18
Durham (near)	Neuse																				.16					.50						0.66
Eagletown	Chowan			T.	.37				T.	.27				T.				T.	T.	.79	1.06	.70	2.72	.05		T.						5.96
Edenton	Coast								T.	T.												.15	.10	.15								0.40
Elizabeth City	Pasquotank																				.60		.30	.70								1.60
Enfield (near) ‖	Tar				.07	.46									.06		.05	.26			.42	.08		.30								1.70
Fayetteville ‖	Cape Fear	.55	.06		.19						.02						.12	.28		.03		.12	.15	.25			.55	.32					2.64
Globe (near)	Santee			.26	.10				.23	.20	.11				.10							.10				.20							1.30
Goldsboro ‖	Neuse	T.	.22	T.	.32	.01				T.	.24				.92	.53	.19	.16			.17	.05		.10	.76		2.07	.25				T.	5.99
Graham ‖	Cape Fear				.26	.04					.15				.03				.04	.15							T.	.12			T.		0.79
Greensboro ‖	do				.48														.09								.05	.81					1.43
Greenville ‖	Tar		.01		.03	.17					.04				.42		1.38	.35			.66	.40		.07			.19	.01				.05	3.78
Hatteras	Coast	.28			.12		.01		.15	.20					1.04					.12	.83			.04	T.	.01							2.80
Henderson	Tar and Roanoke.			T.	.22				T.	.12				.08					T.		.79		.08		T.	T.						1.29
Kinston	Neuse	.16			.07					T.					1.31		1.12					.33	.30	.20	.33	2.29	.27					6.38
Lenoir	Santee			.28	.21					.03	.47					10						.43				.12	.09					1.73
Lincolnton	do				.65				.04	.15						.08		.08									.26					1.26
Louisburg ‖	Tar				.11	.10					.25							.13		.30	.40	.10					.10					1.49
Lumberton ‖	Lumber	.04	.23		.11						T.		T.				.76	.75	T.		.12	.82	.39	.37	.01	.06	.10					.06	3.82
Manteo	Coast								.52	.23											.30		.88	.28		1.04							3.25
Marion	Santee	.16		.47	.74			T.	.04	.11	.10				.17	.28		.04	.09	.56		.04	.11			.03	.02				T.		2.96
Middletown	Coast	.09	T.			T.				.77						.05					.38	.02		.93			.17						2.41
Moncure ‖	Cape Fear	.02				.03									T.	.15	1.06	T.	.10	.04		.46					.40	.67					2.93
Monroe	Pedee	.38			.25				.39						.10	.58	.05					.17	1.01		T.	T.							2.93
Morganton	Santee	.39		.75	.34				.06	.03	.03			.03	T.		.07					.32	.03			1.14	T.	.15					3.34
Mount Airy	Pedee	.58		.10	.18						.29				.51	.16			.03	T.						.48	.52			T.	.07		2.92
Mount Holly ‖	Santee	.32			.14				T.	.33										.92		.25				2.15							4.11
Nashville ‖	Tar		T.		T.	.13		T.	T.	T.	.13				.16		.18	.19		.46	1.26			.09		.07			T.			2.67
Neuse ‖	Neuse					.14									.12		.20					.17				.32	.36					1.31
Newbern ‖	do		.30		T.	T.					.08				.31		.22	.82				.18		.90		.07	2.16	.33				.09	5.46
North Wilkesboro (near).	Pedee				.75																					.75						1.50
Parkersburg	Cape Fear	.50		T.	.15						.10					.45	.50		T.		.30	1.10		.55	.30		1.30					5.25
Pinehurst	Lumber	.25			.65												.80						.15			.30	.10				.05	2.30
Pittsboro	Cape Fear														1.10					.33	.10					.33	.40					2.26
Raleigh	Neuse	T.		.01	.08				T.	.28		T.	T.	.07	T.	.46			T.		.57		T.			.23	1.16					2.86
Randleman ‖	Cape Fear															.30	.13										.86	.20				.09	1.58
Reidsville ‖	do				.56					.02				.11	.04		.04			.23				.12			.12	.10	.16			.06	1.56
Rockingham	Pedee	.15														60	1.45		1.25			.15	.10		1.20							4.90
Rocky Mount ‖	Tar					.20				.30										.28	.90	.15		.69								2.52
Salem	Pedee				.37											.15			.10								1.35					1.97
Salisbury ‖	do																						.45				.20					0.65
Saxon ‖	Roanoke				.50						.10			.15		.08			.27								.28			.16			1.54
Scotland Neck	Tar				.28					.07				.06			.05	.05			.05		.30									.48	1.34
Settle	Pedee			.30	.17				T.	T.	T.			T.	T.				.62	T.		T.	T.			.72	.36			T.	T.		2.17
Sloan	Cape Fear	.44		.09						.13				.15		.15	.14			.27	1.54		.41		.06	.54	.34				T.	4.26
Smithfield ‖	Neuse		.01		.04	.07				.03		T.			.25		.02	.15				.04		.17			.16	.40	.04				1.38
Snow Hill	do	.06			.83					.26					2.81		.89					.70		.21	.75	.08	.34						6.93
Southern Pines	Cape Fear	.25	.10		.35				.30			.40			.80											1.35							3.55
Southport	do			.02	.37											T.	.26							.80			T.	.05				.32	1.82
Statesville	Pedee			.33	.18							.15								T.		.16	.02			.05		.47					1.36
Tarboro ‖	Tar					.17					.60				.25		1.90	T.		.03	.50	.65		.30	.15		.04	T.				.04	4.63
Tryon (near)	Santee	.62		.40	1.03						.25		.17	.22								.12				.36				.22			3.39
Weldon ‖	Roanoke				.16	.12				T.	.07				.04		T.					.76	.04	T.	.08		T.					.05	1.32
Whiteville	Waccamaw	.40	.49	.29							T.					T.	T.					.23	.30	.20	.23		.22					.10	2.46
Willard	Cape Fear	.42		.05	T.					.38					.34		.05	1.05			2.35	.12	.70				.60						6.06
Wilmington	do	.04		.02	.11											.09	.05	.09			T.	.79	.59	T.	.13	.19	.50	T.					2.60

TABLE 2.—*Daily precipitation for August, 1912. District No. 2*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
South Carolina.																																	
Aiken	Edisto	.40							.50		.30							1.80		.50					1.22								4.72
Allendale	Savannah				1.30						.82						.25	.06	.20		.70												3.33
Anderson	do	.07			.06					.55	.32						.42														.02		2.11
Batesburg	Edisto	.26	.21						.11	1.22	.48	T.					T.	.74			.76			.16		.64	1.49						6.07
Blackville	do		.06			1.42			T.	.10	.30	.21					.13	1.30		.98	.56			.02		.09	.06	T.					5.23
Blairs	Broad	.21	.05		.25	.02			.10	.24	.14	.06									.33						.60	.04					2.04
Bowman	Edisto								1.58	1.80						.85	.58				1.52			.06			.11					6.70
Broxton	Salkehatchie				.34												.20	1.76								.96		.54					3.80
Calhoun Falls	Savannah									1.02	1.21		.02						.52							.16	.20						3.13
Camden	Wateree		.30		.52					.35	.40						.20			.25		.15		.40	.04		.20	.15					2.96
Catawba	Catawba	.28	.20	T.	.38	.02			.08	.63			.18			.02	.04			1.00			.95	.10		.10	.16	.10					4.24
Charleston	Coast		.01	.19	1.00			T.	.04	.20	.02	.03					.88			.01		.28	T.	.11		T.							2.77
Cheraw	Pedee	.36	.12		.13					.90	.57					.39	1.10	.37	.44	.16	.59	.01	.43		.03		.98							6.58
Clemson College	Savannah	.20			1.50				.20	.25	.30	.22		.05		T.	.10		.06				.10		.37								3.35
Columbia	Congaree	.23			T.				1.53	.09		T.				.12	T.		1.17	1.34			.01		T.	.61		T.					4.80
Conway	Waccamaw	T.	T.			.05	.13			.05								.73							.10			.70					1.76
Darlington	Pedee		.05		.06	T.				.87	.25	.06					.91	.20	.50			.02		.19		1.45						.25	4.81
Dillon	Little Pedee	.40		.27	T.			T.	T.	.18	.01	.01					.38		.07		.01	.34		.28	.15	T.	.18						2.28
Edisto	Edisto				.72					.89	.52					.22		.35									.20						2.90
Effingham	Lynches	.10	.30		T.					.75	.90						.40	.10						.20									2.75
Ferguson	Santee				.40					1.60	.52	T.					.23	1.00		.03		.02		.05			.30						4.15
Florence	Pedee	.12	.22							.78	.57	.28					.31	.05					.22				.07	T.				.02	2.64
Georgetown	Coast				1.10				T.	.75						.05	.06		.15				.03	.25								2.39
Greenville	Saluda	.99			.47				.63		.13					.01					.09		.01		T.		.04	.28					2.65
Greenwood	do	.26								.31	.41						.11	.44			.05				.47	.30							2.35
Heath Springs	Wateree	.30			T.				.45	.09					.19	.21			.12		.26	.46	.13	.45									2.66
Kingstree	Black		.20		1.20	1.25				.33	.91						.15	.13						.22			.54						4.93
Liberty	Savannah	.15		T.	.80				.20		.10	.02			.02	T.	.02	T.	T.				.05			.30	T.				.10		1.76
Little Mountain	Saluda				.70				1.78	.67						T.				T.			.10	10		.18						3.53
Meriwether	Savannah	.31		.12					.74	1.05	.28	T.					.93	.35					T.			1.05							4.83
Monetta	Edisto	.43	.01						.51	.40						.29	.31	.01		.12	.58		T.	.11	T.	1.76							4.53
Newberry	Saluda				1.03				.03	.54	.22	.26				.18	.80									.35							3.51
Pelzer	do	.60			.26				.34	.06																							1.26
Pinopolis	Cooper				.85				.24	.31						.05	.70	.11						.43		.42							3.11
St. George	Edisto				.60	T.			.19	.62	.25							.80			.40				.05		.65						3.96
St. Matthews	Santee	.08	.45		.26	.06			.15	1.30	.55	.12					1.17	2.25		.05	.05						.10	.05					6.64
Saluda	Saluda	.35							.30	.43	.20	.04				.49	.55			.84													3.20
Santuc	Broad	.11			T.			T.	.36	T.	T.				T.	.08			T.				T.		.31	.14		.02					1.02
Smith Mills	Pedee		T.		.63	.91					.34						.19	.18		.11				16			83						3.35
Society Hill	do			.10						.27					.02	1.40	.07	.41			.35	.18			.22	.43							3.45
Spartanburg	Broad	.50		T.	.10				.60	T.					.20								T.				.20	.22					1.82
Summerville	Ashley	.02		T.	.82				.52	.68	.42	.03					.90	.34					T.	.70		T.	.47							4.90
Trenton	Edisto	1.24							.27	.25	.11	.10				.02	1.52	.11		T.			.30	10	T.	T.							4.92
Walterboro	Ashepoo	.76		.05					2.25	.32	.07		.46				1.30	.10		.37		.34	.12	.48		.09	.04						6.75
Winnsboro	Broad	T.		T.	.50				2.00	.30		.05				.20			.28	.20		T.										3.53
Winthrop College	Catawba	.40		1.30	.15				1.10																	.45							3.40
Yemassee	Combahee				1.63	.02			T.	.70	.29	.19		.02				2.65		.03	.09		.13		.11		.10						5.96
Georgia.																																	
Abbeville	Ocmulgee		.26	T.	.30	.21			1.67	.24	.30	.10					T.		1.45		.46		.06	.14	1.38	T.							6.57
Adairsville	Coosa								1.74	2.00	.85					T.		2.30	T.				25		T.	.20							7.34
Albany	Flint		.60	.71	1.15	.01			.81	.80		.05		T.	.21				.48		.24	.06	.38	.03	.02	.12							5.67
Allapaha	Allapaha		.04	.26	1.18	2.03		.15	.06	.23					.20		.15	.23				.50	.07		.92	.04			12				6.18
Americus	Flint		.80		.60	.10			.30	1.30		.20			.80		.40		.20		.40			.10		.30							5.50
Athens	Oconee	.45								1.55	.68	.19														.04							2.91
Atlanta	Chat'ho'chee	.02			T.			.70	.13	1.23	.29	.07						1.07		T.		T.	.02	T.	T.	.17							3.70
Augusta	Savannah	.63		.14	.06				2.24	2.05	.04	.14					.24	.01					.01			.58							6.14
Bainbridge	Flint	T.	.18	.60	1.85	1.40	.02	T.	.62	.16	T.			.90	.95	T.		.30	T.			.61	.77	.03	.05	.68	.48		.40				10.00
Butler	do								1.72	1.10	.42	.24						.82		.25	1.34			.08									5.97
Camak	Savannah	.21			.50					1.19	.71	.28						1.30									.57	.15					4.91
Canton	Coosa	.69							.13	3.20	.90								1.16		T.		.29			T.	.22						6.59
Carlton	Savannah	.45								1.45	2.06	.05	.15																				4.16
Clayton	do			2.00	.44					1.08	T.							2.00															5.52
Columbus	Chat'ho'chee	.11	T.		1.23	.13			.26	.10	.75	.37	.11				.05	.02	.44		.38		.15	T.			.11						4.21
Concord	Flint							.25	.90	.40		.40										.06	.08										2.08
Covington	Ocmulgee	.10								.35	.75							.15	.25								.15	.15					1.90
Dahlonega	Chat'ho'chee	.09							.40	1.74	.29	.02					T.		.24	.11			.14			.14	.15						3.32
Diamond	Tennessee	.25			.17			T.	.67	1.20	.61							1.16	1.34	T.			13	.03	T.								5.56
Dublin	Oconee		T.		T.	.07			.44	.08	.28	.42		.17					.17			T.		.10		.79							2.52
Eastman	Ocmulgee		.61	T.	.43	.07			.23	.25	.09	.58		.06			T.	T.	.07	T.	.05	T.	T.	1.33	T.	T.	T.							3.77
Eatonton	Oconee	.27			.03				.97	.30	.36	.30							.28	.85		.51	.48		.04								4.39
Elberton	Savannah	.12							.81	1.72	.35	.05								T.	.32			.08		T.							3.45
Fort Gaines	Chat'ho'chee	T.			2.10	.15			2.25	.95		.21			.48					.10			.85	.05	1.19		.45	.51					9.29
Gainesville	do	.37			2.60					1.28	1.10							.41							.53		.50						6.79
Gillsville	Savannah		.35		.96					1.06	1.00								.30							1.00	.58						5.25
Glennville	Altamaha		.34	T.	1.21	.29		.13	.01	.40	.01				.12			.20	T.		.66		.31	.21			.01						3.90
Gore	Coosa	.14						.27	1.42	.74	.29				.09	1.15	.21					.30	.06			.10	.25						5.02
Granite Hill	Ogeechee	.05							.57	.07	.39	.39					.30	.16		.19		.18	.45	.40			.56	.01					3.72
Greensboro	Oconee	.63							T.	.47	1.44	.05									T.			.52									3.11
Griffin	Ocmulgee				.10				.26	.56	.41	.18	.21						1.08					.70									3.50
Harrison	Ogeechee							.23	.08								.10	.40															0.81
Hawkinsville	Ocmulgee					.24			.23	.59	.20	.76	.11	.28				.42	.03			.28		.46			.12						3.72
Lisbon	Savannah	.23							.30	.52	.30								.33	.01				.11									1.80
Lost Mountain	Chat'ho'chee							.25	.80	.65	1.20									.17		.10											3.17
Louisville	Ogeechee	.35			.09			.04	.13	.51	.21					.10	1.96	.04		.16						42							4.01
Lumber City	Ocmulgee		.16		.15	.07		.05	.33	.40	.40	.17						.60		.42				.60	.32		.82						4.49
Lumpkin	Chat'ho'chee			1.62				2.39	T.	.18	.41									.31			.46			58							5.95
Macon	Ocmulgee	.48						.41	.30	.50	.53	.03					.26	.01	.08				.03				.04						.08	2.75
Marshallville	Flint	T.	.28		T.			T.	1.83	.08	.33	.70		.05				T.	T.	T.	.60	.05	T.	.56		T.	T.	T.		T.				4.48
Milledgeville	Oconee		.15						.05	.40	.70	.98						.27	.13				.04	.78		.21		.34					4.05
Millen	Ogeechee		.25						1.10	.75	3.00							.13	1.25		1.75												8.23
Montezuma	Flint		T.		.29	2.81			.39	.87	.11	.22	T.							.03		.01	T.	.68		1.11							6.52
Monticello	Ocmulgee	.10							.05	.88	.58	.14	.18				.08	.08		.15	.32		.02	.09			.33	.02					3.02
Newnan	Chat'ho'chee	.37			1.00				.40	.90	1.30	.34	.05						.50		.05		T.	.20			.09						5.20
Norcross	do	.24							.02	.88	1.26	.20					.20		.06		.14	.02	.04			22							3.28
Point Peter	Savannah								.65	1.55	.55	.07								.54					.07	.07							3.50
Poulan	Suwanee	.42	.03	4.10	.57	.02	.01	.43	.28					.04	.80	.03			.14		.40	.43	.03	.18	.10	.04								8.05
Putnam	Flint			.80	.90				3.57	.34		.40								.50			.40										6.91
Quitman	Suwanee				.60	.70		2.46	.96									.21			.60	.05	.11	.19		.16		.32					6.36
Ramhurst	Coosa	.57		.04				T.	.58	1.35	.48							T.	T.			.22	.11	T.		.18							3.53

TABLE 2.—*Daily precipitation for August, 1912. District No. 2*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Georgia—Contd.																																	
Resaca ‖	Coosa							.65	1.53	.70	T.				.20	.10			.40							.40							3.98
Rome ‖	do	.13						.82	.42	.91	.03								.58		.17	.05	.40	T.	T.		.02						3.53
St. George ‖	St. Marys	.45	.23	.19	2.90	.06	.73	.06	T.						.13							1.95		.73	.12	.28		.03					7.86
St. Marys	do	.23		.12	.60	.39	.45	.02	.29			T.		T.										.03		.59		2.20					4.92
Savannah	Savannah	.40		.28	3.30		.07	.36	T.	T.	.59						.85		T.	.28		.04	T.	.91		.18	T.	1.01					8.27
Statesboro	Ogeechee			.63	.37			T.	.13	T.	.37	T.					.35	.05		2.31	.03		.09			.15		.20				.05	4.73
Talbotton	Chat'ho'chee							.60	1.12	.40	.20	.70						1.30	.05	.50	.02					.90							5.79
Tallapoosa ‖	Tallapoosa	.25			.10				.40	.70	1.60								.35				.40	1.50		.30							5.60
Thomasville	Ocklocknee	.01	.90	.57	.71	T.	T.	.55	T.	T.				.60			.03		T.	1.18	.36	.72	.12	.65	.33	.10		.17		.12			7.12
Toccoa ‖	Savannah				1.10					.70	.95	.07				.10	.12			1.10					1.28								5.42
Valdosta ‖	Suwanee		T.	1.00	.55	1.00		2.00	.80						.30			.85		.35	T.			.65		.40		.30					8.20
Valona	Coast				1.10		.14	.25											.25				.21					1.10				.73	3.78
Washington ‖	Savannah	.32	.08							.87	1.95	.08	T.					T.						T.									3.30
Waycross ‖	Satilla		.01	.15	.80	.80	.01	.28	.61	.07	.01				1.87			.23				.04	.29	.07	.07		.21		.03	.20			5.75
Waynesboro ‖	Savannah				.41				T.	1.20	.60	.42						.20			.70												4.50
West Point ‖	Chat'ho'chee	.30			.07				.70	.38	1.20	.06	.68								.06												3.45
Woodbury ‖	Flint	.14			.15				1.36	1.06	.55	.35	.92											.07			.06						4.66
Florida.																																	
Apalachicola	Coast	1.74	1.16	.06	3.09	.05		.79					.85	1.85	.02								.92	.95	.36	.10		1.55			.60		14.09
Arcadia	Peace Creek			.30	.05	.33	1.83	.01	.05	T.	.03	.67	.38	.53	T.	.01					.18		.17	.13	.07		.53			.15	.10		.05	5.57
Archer	Waccasassa	.15	.20		.92	.55	.39	.10	.24					.74										1.65		.50		1.21		.35			7.00
Avon Park	Kissimmee		.12	.33	.09		1.47		.11		.02		.04	.48	.22	.13		.18	.12			.04	.35		.39	.21	.68						4.98
Bartow ‖	Peace Creek	.69				.14				.04		.40		.03	.17	.06					.06			.12		.02	.10	.59	.03				2.45
Bradentown	Manatee				.35						.54		1.66	2.20	.90	.06	.18	.32						.24									6.45
Brooksville	Withlacoochee	.12			.44	.34						.74	.47	.24							.05	.25	.64	.77		.30		1.22		.15	.10		5.83
Carabelle	Coast	.26	.22	.20			.40			*													5.50			.55		.50	.31				7.94
Cedar Keys	do	.79	.60		.14	2.85	1.68	.09					.18	.93	.04		.16					.34	1.55	1.32		.28	.17	.58	.05				11.75
Clermont	Lake	.82			.23			.92	T.				.40		1.20	.10							.10	.08		T.							3.85
Crescent City	St. Johns	.75		.15	.40	1.45	.10	.45	.30						.55									1.60		.07		.40					6.22
De Funiak Springs	Choctawhatchee	.60						T.	1.48					.30					.04	.24	.02		.04	1.86	1.60	T.							6.18
De Land	St. Johns	.04		.45	.14	*							1.98		.66	.01						.02	.05	.04	.07			2.15	.16	.44			6.21
Eustis ‖	Lake	.05		1.15	.40	.32		.43	.27				.57	T.	T.	.17	.03					T.		.24	.27	T.		.34		.02			4.26
Federal Point	St. Johns		.12	2.20	.55	1.98	.02	.13	.73					T.	.02	T.								.46		3.43		.11		.22			7.97
Fenholloway	Fenholloway			2.10	2.50		.65	.22					20	1.70			.60	.21					.96	1.00	T.	.78		.20	.21				11.33
Fernandina ‖	Coast		.60	T.	.89	.66	.38	.78	.02	.42				.16		.02							.42	.04		.14	1.60		.14				6.27
Fort Meade	Peace Creek				T.		.64	.20	.10			T.	T.	T.							T.	1.04			1.55							3.53
Fort Myers	Caloosahatchee		1.10			T.	T.	T.				.87	T.	T.	.31	T.	T.	.11	T.	T.	T.		1.58		.55								4.52
Fort Pierce	Indian														.52				.30	.20		2.00	1.10	.30		.20		.80					5.42
Gainesville ‖	Lake	.07	.25	.30	.50	.30	.50	.62		.89					.10	1.00	.06	.02				.08		1.41	.53	.07	.31		.67	.02	.01			7.71
Grasmere	do	.01		.01	.10	T.		.16	.10	.19			1.77	.02	.20								.22	.02		.03	.05	.77	.01	.41	.01	.34	4.42
Hilliard	Nassau	.25			1.68		1.20	.40							.80							.45		.50									5.28
Homestead	Coast	.03										.40	.32		.40				.40	.23	.25	.32		.62	1.93	.20				.70	.05		5.85
Hypoluxo	Lake						.01			.03											.28	.32			.03	.33				.19			1.19
Inverness ‖	Withlacoochee				.56	.76							1.00	.05	.25								1.20	.68	.04	.06	.60	.62	2.47	.03			8.42
Jacksonville	St. Johns	.68	.08	.12	.43	.14	1.12	.42						T.	.13						T.	.52	.23	.05	1.27	.13		T.					5.32
Johnstown	Suwanee	.81	.11		.69	.58	1.00		.12				.43		.26						.65		.32	.52		.31		.37					6.17
Key West	Coast			T.								T.	.10	.44	T.	T.	.38	T.	T.		T.		.12					.40		.20		.05	1.69
Kissimmee	Kissimmee			.25	.24			T.	.84		.27		.12	.58		.80						.30	T.					.70	T.				4.10
Lake City ‖	Suwanee	T.	T.	.34	.55	.6	.07	.10	T.	.80					.54			.83	.40					.50	1.63	T.	.12		T.	T.			6.54
Lucerne Park	Peace Creek	.05			.02			.65	.25		.20	.01	.48	.01	.43		.02						.03		.06	.30	.40				.14		**3.05**
Macclenny	St. Marys	.27	.11			.25	.37	.14							.65	.03							.03			1.15						**3.00**
Madison ‖	Suwanee	T.		.06	.49	1.30	T.	.09	.28	.08				.08	.21		.08	.15				.23	.15	.44	1.49		.14		.37		.20		5.84
Malabar	Indian				.10	.05	.05		.15				.20	.40				T.	T.						.90	.03		.62	T.				2.50
Marianna ‖	Apalachicola	.10	.27	.32	.5	.38			T.	.77	T.			.68	.42		T.	.40			.07		.69		.13	.22	.03	1.60	.33		.32		7.07
Merritts Island	Indian	T.	.93	.51	.28	.01	.55	.68	.07				T.	.12		T.	.02	T.	.01	T.	.02	.15	.03			.21	.75	.14	.01					4.49
Miami	Coast											.23	.05	.66	.38	.03	T.	.10	.18			T.	.09	.11			.50		.60			2.93
Middleburg	St. Johns	.08	.49			.94	.26								.10						.13		.92	.06		.61	.05					3.64
Molino	Escambia		.65	.40									.40				.35					.95	.75									3.50
Monticello	Aucilla		.18	.15	.52			.38	.17				.36	.55			.97	.02	.04	.26	.44	.04	.83	.43	.08	.15		.38					5.95
Mount Pleasant	Apalachicola	.08		.02	1.88			.60		.10			.22	.10	.42			.11				1.00	.56	.25	.06	.15	.20	2.40		.35			8.50
New Smyrna ‖	Coast			.21	.47	.03	.28	.67	.78	.93					.10									.40			.37	.16	.96	.03	.26		5.65
Observation Island	Caloosahatchee		.84					.22	.10					.10	.35								.66		.15			.40					2.82
Ocala	St. Johns	.08	T.	T.	.40	2.00			.59			T.		T.			T.					T.	.12	.91		T.		1.06	T.	T.			5.16
Orange City	do			.34	.12	.56		.26					1.94		.78	.04							.61	.19	.66		.13	.06	.40	.78			6.87
Orlando	do	T.		.52	.04	T.		.03	.93				.37	.71		.10	.18	T.		.09			.25	T.		2.57		1.71	.22	T.	T.		7.72
Pensacola	Coast	.08	.62	1.18				.03	T.		.01			.01	.02				.42	T.	.56		T.	.63	.01	1.37	.05	.15	T.	.10	T.		5.24
Pinellas Park	do				.07	1.67						.07	1.73	.37	.06									.31				.05	.63				4.96
Plant City	Hillsboro			.30	.09								.10	.40	.30	.86							.19		.76		.46	.08			.08		3.62
Rockwell	Withlacoochee	.45	.02		*	2.03	.47					*	.40	.30	.45								1.70	2.00		*		.95	.87					9.64
St. Andrew	Coast	1.89	1.18	1.19				.82		.01	.03		.01	1.23	.03	.04		.18						.22	.22	.93	.46	.20	.02		.15		8.81
St. Augustine	do		.16		.45	1.67	.95	.10															.50	1.15	.50	1.65		1.15					8.28
St. Leo	Withlacoochee	.12			.20	.11		.32	.03				.43	.81	.20								.41	.31		.51	.33		.08	.52			4.38
Sand Key	Coast												T.	.05	.02	T.	.28	.01	.39	.31	T.			T.		.01		.01		.24		T.	1.32
Satsuma Heights	St. Johns	.01	.06	.41	.42	2.56	.11				.48		.25	.01	1.18										1.32	.14		.64	.29	.18			8.06
Switzerland	do								.02						.12							.08		1.28	.70	.98	.17						3.35
Tallahassee ‖	Ocklocknee	T.		.45	.75	.18			.08	.03				.18	.68	T.		.10		.32	.03	.20	T.	.12	.50		.45		.48		.10		4.65
Tampa	Coast	T.			.13	.93					T.	.53	.51	.72	1.53	.14	.03			T.				.30	T.		T.	.04	.07	T.			4.93
Tarpon Springs	do	.05			.06							.65	.47	.70	.07	.02	.29			.27	.03		.23	.37		1.20	1.44		.09	.45			6.39
Titusville	Indian	.03	.18	1.08	.08	.02	.88	1.99	1.08	.02				.48	.43	.31				.12		.63	.54			.01	.42	1.63	.06	.01				10.00
Alabama.																																	
Alaga ‖	Chat'ho'chee	.02	.06	3.94	1.07		T.		.12	T.	T.			.08	.57			.02		1.70	2.15		.14	.15	.10	1.11	.04	T.			T.		11.25
Anniston	Coosa			T.				.36	1.02	.32	.26	.05	.01					.01		.01	T.	.12	.44	T.	T.		.12	.01					2.74
Ashville	do			1.24				.33	1.09	1.39	.50	.19	.33	.08		.21		2.57					.30	.40			.11						8.74
Auburn	Tallapoosa	T.		.30				.49	.48	.99	.09	.39				.06	.01	.01	.84	.09		T.	T.					.02					3.77
Bermuda	Escambia	.23	.01	.12				T.	.05	.04	.72					.02		.72		.07	.33	.32	.38	.65	.17	T.	.55	.39		T.			4.70
Birmingham	Blk. Warrior			T.				.03	2.85	.56	.33	.22				.10	.86					.13	.01	.30	.01	.01	.19						5.67

TABLE 2.—*Daily precipitation for August, 1912. District No. 2*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
***Alabama*—Contd.**																																	
Calera ‖	Coosa	.10							.82	.32	.65	.95	.60	.02			1.50	1.49	.20				.35	.10				.12					7.22
Camp Hill	Tallapoosa	.55						1.10	.30			2.37						.65															4.97
Cedar Bluff	Coosa						.90	1.00		1.25										.50													3.65
Citronelle	Alabama	.06	.50	.12	.08			.06	.74	.06	.11		.52	.01				.42		.15	.70	.40	.32	.05			.08	.05		.17			4.60
Clanton ‖	Coosa	.15			.68				.42	.85	.16	.51	.34	.59			.29	.02	.15				.13	T.				.17					4.46
Cochrane ‖	Tombigbee	.14						.25	.05		1.33	1.18	.18						1.00					1.40		.40	.25						6.18
Cordova	Blk. Warrior								1.81	.54	.75	.20				.10						.82	.80		.49		.25						5.76
Cullman	do			T.				.14	1.00	.66				1.00		.10							.10				.40						3.40
Dadeville ‖	Tallapoosa	.22			.50			.23	.58	.19	.56	.09	.48						.10					T.									2.95
Daphne	Coast	T.	.10	.35	T.			.58	T.	.52	T.		1.30	.30							T.		.35	.05	T.	T.	.05	1.00	T.	.12			4.72
Demopolis ‖	Tombigbee	.06			1.12				.96		.24	.75	.65	.13									.08	.03				1.15					5.17
Eufaula ‖	Chat'ho'chee	T.	.42	T.	4.10	.14	T.		1.45	1.34	.05	.61			.09		.03	.26	.70	.03			T.	.03		.11	.60	.02	.08				10.06
Evergreen ‖	Escambia				.02				.30	.42	.09	.82	.06						.56		.10			1.10			.02	.03					3.52
Flomaton	do	.03	.02	T.						.08	.12						1.03	T.			.14	.08					T.	.36	.05				1.91
Fort Deposit ‖	do	T.			1.60				.35	2.70	.25								1.50					.23				T.					6.63
Gadsden ‖	Coosa	.70			.40			T.	.68	.90	1.16	T.	.06			.20			1.92					.44	.98		.66						8.10
Goodwater ‖	do	.03			.29			.34	.37	1.27	.80	.39	.40	.27					.26				.70	.88			.54						6.54
Greensboro ‖	Blk. Warrior				.08				.05	.06	.30	.93	.17				.66	.05															2.30
Greenville ‖	Escambia			1.97	.58				1.27		.28	.27					.25		2.20				1.33	.91		.72							9.78
Hamilton	Tombigbee								1.63	.21	.35	1.10		.05									.61		.10		.11						4.16
Highland Home	Escambia		1.25	.25					1.39	.19		.39					.02	1.58	T.			.35	.95	.47									6.84
Livingston ‖	Tombigbee	.12							.64	.04	.56	.51	1.25										.10	.61				.79					4.62
Lock No. 4	Coosa								.80	.75	.45	.50						.18					.03		.22		.14						3.67
Maple Grove	do			.68			T.	.49	.41	1.26	.15					T.		T.	T.			.25	.41	.16	T.		.10						3.91
Mentone ‖	do							T.	1.60	.64		T.					.72	T.						.64									3.60
Milstead ‖	Tallapoosa	.90			.85				.15	.20	.95	.50	.20						.95					.45			.30						5.45
Mobile	Coast	.19	.10	.36				.01	.27	T.		T.	.10	.05				.01	.11			1.80	1.33	1.65	.01		1.76	.05	.27	.18			8.25
Montgomery	Alabama	T.		.03			T.	.10	2.57	.35	.08	.35						.31		T.		.08	.12				.59						4.58
Newbern	Blk. Warrior			.01				.82	.15	.03	.60	.26						.15					.15				.04						2.21
Oneonta	do			.10				.70	1.38	.66	1.52	.11		.05		.58		.18	.05			.19	.35	.40	.25	.04	.18	.04					6.78
Opelika ‖	Tallapoosa	.80							1.15	.08	1.25	.35	T.						T.	T.	T.		.15					T.					3.78
Ozark ‖	Coast	T.	.65	T.	1.00	T.			.35	.60	T	.25	T.					T.	.40		1.85	T.	.30	1.10	.35	T.		.20			.20		7.25
Prattville	Alabama				.18			.67	.52	.20	.11	.22		T.		T.	.37	1.15	T.			.08	.06				1.00						4.56
Pushmataha	Tombigbee			.55				1.23	.54	.08	.57	.09	T.					T.					.25	.08			1.42	.23					5.04
Robertsdale	Coast	.36	.56	.14				T.		.23			T.	1.57				.65	.06		1.69		.10	.16			.91	.60		.16	.06		7.25
Selma ‖	Alabama	.26			.76				.05	.96	.85	.08	.34	.06			.45						.07	.87									4.75
Springhill ‖	Coast	.03	.33	.17	.05					.39					.03								.25	1.25	1.30	.05			.55	.91			5.31
Talladega	Coosa							T.	2.90	.54	.50	1.18			T.							.56		2.25		.11	.06						8.10
Tallassee ‖	Tallapoosa	.60		T.	1.98				.13	.59	1.36	.08	.08					.01	.36	T.				T.				.14					5.33
Thomasville ‖	Tombigbee	1.91			.29				.10	.90	.85	.61	.78	.02					T.			T.	T.	.86				1.01			.44		7.77
Troy	Escambia	.13		.16	.01			.55	.68	.80	.01	.68	.05					1.08	.17			.02	.96					.14					5.44
Tuscaloosa ‖	Blk. Warrior	T.							2.00	.05	1.18	.31	.65		.02		.06						T.		T.	.11		.06					4.44
Tuskegee	Tallapoosa	.70		1.28					.55	1.07	.84	1.00					.47		.15		1.90		.07			T.							8.03
Union Springs ‖	do	.40	.10		1.06	.10			.60	.30	1.01	.40	T.						.81		.60			1.51			.21						7.10
Uniontown	Blk. Warrior							.59	.10	.25	.93	.83						.77															3.47
Valley Head	Coosa							.80	2.55	.37	T.					1.40	T.	.72					.25				.37						6.46
Wetumpka ‖	do	.98			1.90				.16	.20	.79	.15											1.15					.42					5.75
Mississippi.																																	
Aberdeen ‖	Tombigbee	.27			.32			.42	.65	.40	.29		T.	.41			.06						T.		.15	.40		.20					3.57
Bay St. Louis	Coast	.74	.97	.20	.05			.50	.01	T.	.03	.05	.05		2.50			.01					.11	.74	.02	.34	.34	1.11	.03	.09			7.89
Bay Springs	Leaf			.10													.50									.50							1.10
Biloxi	Coast	1.96	1.00	.22	T.				.03	1.44	.03	.14		.72	.10	.01		.01						.15		.05		1.93		.17			7.96
Booneville	Tombigbee	T.			.22			.31	1.61	.59			.82			.26	.09	T.	T.			T.	.68			.04							4.62
Brookhaven ‖	Pearl	.02		1.53	.35				.02	.03	.19	.13	.02	T.		T.	T.			.35		T.	.32	.02			.11	.84			20		4.13
Columbia ‖	do	.30		1.87	.60				.03	.12		.59	.18	.20	.10	T.	T.			.02							.07	.02	1.41					[illegible]
Columbus ‖	Tombigbee	T.			.20			.04	1.56	.14	.74	.04	T.			.10	.75						.10		.47	.79		.21					5.14
Crystal Springs ‖	Pearl	.68	.15							1.47	.60	.15	.18	.72	T.	1.01								.25				1.20		.04			6.45
Edinburg	do			.11				1.25	.11	.58	1.57	T.	.21	.58	.42				.16			.29			T.	.05	1.46						6.79
Enterprise ‖	Chickasaw'y	.05	T.		T.				1.00	.28	.40	.84	.55						.12					.08				1.80			.37		5.49
Fulton ‖	Tombigbee							.18	1.17	.18	.29		.34	.17			.51	.05					1.52			.10		.08					4.59
Hazlehurst ‖	Pearl	.18			.27					.05	.20	.05	.47	3.70		.45				.05				.05				.85					6.32
Hickory ‖	Chickasaw'y	.46		.01				.02	.05	.08	.60	.18			.04			.06					.40		.01		.02	.43					2.36
Jackson	Pearl		.48	.05				.29	.26	.35	.98	.48	.41	.03	.04				.04	.42							.77	.07		.02			4.69
Lake ‖	do	.12			.48					.60	.30	.10	.08	T.		.06			.10					.10				.78					2.72
Laurel	Leaf	T.	.20	.44					.12	T.	.72	.31	.03			T.		.01	T.	T.		T.	.20	T.	T.	T.	T.	.25		T.			2.28
Leakesville ‖	Chickasaw'y	.20			.32				.13	.33	1.08	.83										.66	.13	1.40			.12	.83					6.03
Louisville	Pearl			.05				2.60	.21	.75	1.38	.25	1.60	.17	.58										.30		.62						8.51
McNeill	do	1.07	.02	.88				.38	.94		.10	.17	1.75	1.25	.30	.48		T.				.45	.35		.09	.05	.85	.75	.06	.30	T.		10.24
Macon ‖	Tombigbee	.50			T.			.23	.88	.26	.65	.13	1.35										T.			T.		.06					4.06
Magnolia	Pearl	.23	.03	.16				.04	.55	.02	.18	.07	.15	T.	T.				T.	T.	T.	.70		T.	T.	.01	1.67		T.	.15			3.96
Meridian	Chickasaw'y			.06				1.41	.23	.36	.76	.46						.34					.02		.01		.32				.23		4.20
Merrill ‖	Pascagoula	1.80	1.60	.20	.56				.02	.56	.24	.18	T.	.20	.16				.44				.10	.22			.04	.24			.30		6.86
Monticello	Pearl	.20	.02	.47	.01			.02	T.	.11	.19	.26	1.05	T.	.14	T.			T.	T.	.03	T.					.04	.50		.27			3.31
Okolona ‖	Tombigbee				1.70				2.00		.70			.12			.62						1.15			.10		.20					6.59
Pascagoula	Coast	1.03		.05					.06					.15					.18					.95		.13	*	3.91		.22			6.68
Pearlington	Pearl	.27	.73	.03					T.			T.		.50	.20	.23	T.		T.				.25	T.			.43	.67		.50			3.81
Shubuta ‖	Chickasaw'y			.90	.64					.30		.68		.10					.04			.18				3.60	.10					6.54
Tupelo	Tombigbee			1.08	.38		1.03		.90					.15		.02	.32	.26					1.53				.15					5.82
Waynesboro ‖	Chickasaw'y	.33		T.	.15			T.	T.	.06	T.	.92	1.03	.11	T.				.33			T.	.70	T.			.30	2.15					6.08

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 2, South Atlantic and East Gulf States.*

Date.	Virginia.								North Carolina.																		Charleston, S. C.	
	Hot Springs.		Lynchburg.		Norfolk.		Richmond.		Charlotte.		Edenton.		Fayetteville.		Hatteras.		Newbern.§§		Raleigh.		Reidsville.		Salisbury.		Wilmington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	69	39	78	61	82	70	82	63	80	66	81	73	84	65	80	70	73	66	82	69	87	62	90	68	80	70	87	78
2....	75	32	84	51	83	67	87	60	84	62	80	61	88	60	85	71	84	57	88	63	94	56	88	64	88	68	84	75
3....	69	40	70	62	76	65	78	62	83	64	.....	.....	86	65	79	73	87	61	82	63	86	65	88	62	84	71	84	75
4....	69	46	74	57	68	58	75	57	69	58	.....	.....	70	59	76	67	66	61	65	56	80	55	87	57	74	62	76	66
5....	70	47	76	55	75	62	78	55	75	55	82	55	80	56	76	67	81	53	78	56	80	57	85	52	79	60	78	65
6....	71	53	77	55	76	64	80	56	81	57	80	53	82	56	78	69	78	56	80	58	85	55	84	50	80	61	80	69
7....	76	55	81	55	76	65	82	56	80	63	81	55	80	58	78	70	81	58	79	60	84	58	82	55	80	64	81	72
8....	71	61	79	60	82	67	86	60	76	65	81	66	88	63	83	72	87	62	84	64	82	60	84	57	83	67	81	74
9....	76	63	84	69	81	71	84	72	83	69	88	70	91	69	82	72	88	66	86	69	87	68	87	67	86	70	86	73
10....	79	46	87	68	88	72	89	72	82	66	90	71	90	67	84	73	91	67	90	68	93	69	87	60	90	71	91	72
11....	80	41	89	63	89	72	92	66	84	70	90	71	91	69	85	76	89	66	90	69	94	64	90	60	91	73	92	74
12....	80	52	87	68	92	72	92	69	88	67	96	76	95	69	86	77	94	66	94	70	96	67	94	67	92	73	91	77
13....	80	50	89	68	94	72	95	70	89	71	98	78	95	69	88	76	94	68	95	73	97	72	94	70	92	74	91	76
14....	85	53	95	72	93	72	95	69	91	71	98	76	97	75	86	71	95	66	95	72	99	76	97	62	93	75	92	75
15....	82	48	91	68	88	74	88	68	91	70	92	84	95	73	88	77	95	69	92	70	94	75	97	62	90	72	91	75
16....	78	44	82	67	81	72	81	68	86	68	90	80	90	68	84	76	93	64	88	67	90	69	89	66	87	72	84	73
17....	76	44	83	64	82	70	87	63	88	69	86	75	91	69	83	75	87	61	87	68	94	72	90	70	84	72	87	73
18....	81	51	91	73	87	72	93	73	88	71	95	78	93	72	84	75	91	67	90	72	95	69	94	70	90	75	89	77
19....	81	49	95	72	96	72	97	70	90	69	98	80	96	71	85	73	96	70	96	71	98	69	97	70	92	75	89	76
20....	81	53	90	71	90	72	91	69	91	72	93	78	97	72	89	68	95	67	95	73	97	72	98	72	94	76	94	76
21....	75	50	87	70	90	74	90	72	91	68	90	76	96	73	86	76	94	67	91	71	93	68	95	70	91	71	97	72
22....	78	48	88	72	91	74	89	72	87	68	93	78	93	70	86	78	91	68	91	72	93	70	90	67	92	70	93	76
23....	74	59	84	65	88	70	88	67	88	70	89	76	91	71	85	73	87	66	91	73	93	68	91	70	86	71	90	76
24....	80	40	89	56	86	69	90	59	90	67	85	65	90	68	85	74	91	64	90	68	93	61	96	72	86	73	88	75
25....	83	47	92	65	90	74	93	67	88	67	90	74	92	70	86	75	92	68	90	68	96	70	93	70	90	71	89	76
26....	82	49	92	71	87	71	90	72	87	66	90	72	90	68	84	74	89	63	88	66	94	67	93	60	88	67	89	72
27....	78	50	90	70	89	68	92	67	89	69	91	69	92	70	84	75	92	63	92	67	94	73	93	63	90	74	93	74
28....	77	35	81	58	78	65	80	59	86	66	83	63	86	66	78	70	85	63	84	65	86	61	88	64	81	71	89	73
29....	73	47	91	68	88	67	93	68	89	69	91	76	94	71	84	73	92	64	88	71	90	66	93	67	91	73	93	76
30....	80	46	85	66	74	68	80	64	90	71	84	66	93	70	80	69	90	66	88	70	92	67	98	68	88	73	95	76
31....	83	49	95	64	81	64	87	64	95	73	85	62	93	73	80	68	92	64	91	72	100	65	98	69	85	76	97	78
Mns..	77.2	48.0	85.7	64.6	84.5	69.2	87.2	65.5	85.8	67.0	88.6[b]	70.9[b]	90.0	67.6	83.1	72.7	88.4	64.1	87.7	67.5	91.5	66.0	91.3	64.5	87.0	70.7	88.4	74.0

Date.	South Carolina.														Georgia.													
	Columbia.		Conway.§§		Ferguson.		Georgetown.		Newberry.		Society Hill.		Greenville.		Albany.§§		Atlanta.		Augusta.		Dahlonega.		Macon.		Rome.§§		Savannah.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min
1....	78	69	85	76	84	71	86	74	.....	.....	77	64	85	64	89	70	82	67	83	70	81	64	87	71	87	68	87	70
2....	89	66	94	70	91	71	90	73	90	65	85	69	88	57	92	74	88	65	88	69	85	56	88	66	92	59	90	73
3....	89	71	94	68	94	68	92	73	92	68	88	62	89	59	89	73	89	71	90	70	83	62	83	70	94	61	92	72
4....	74	61	72	65	70	66	72	63	68	61	66	58	74	60	86	71	73	64	74	65	78	63	80	67	82	55	83	65
5....	80	62	86	61	78	62	79	62	80	59	78	58	80	56	90	67	79	60	80	65	75	56	78	66	86	59	77	64
6....	82	61	88	64	82	62	80	64	83	57	79	59	83	54	86	70	80	62	82	67	79	53	83	65	83	59	81	67
7....	83	63	90	68	84	62	84	64	87	61	80	63	83	57	90	72	76	68	85	66	73	63	83	68	78	62	82	72
8....	83	70	91	65	86	66	84	67	86	68	84	67	78	62	93	72	77	67	84	69	74	64	78	70	82	66	86	71
9....	86	68	95	71	88	68	91	69	86	68	87	66	83	63	90	74	84	64	85	65	80	64	89	67	87	69	91	73
10....	88	67	94	66	90	66	90	68	86	66	87	70	85	64	92	70	79	65	88	68	79	64	89	68	84	66	90	68
11....	86	70	95	71	91	69	91	75	85	69	89	69	87	66	91	74	78	66	87	70	79	66	84	68	82	66	93	73
12....	91	70	97	72	94	71	93	75	92	67	92	72	90	64	93	72	87	67	90	70	87	59	90	69	90	64	93	76
13....	93	73	96	73	93	72	93	75	95	69	93	74	91	65	93	71	90	72	91	73	87	65	91	71	92	66	89	74
14....	94	74	97	74	95	73	96	74	96	70	94	73	93	67	91	72	88	71	92	72	89	65	92	72	94	70	91	74
15....	90	73	98	73	95	70	89	74	97	70	88	68	93	66	92	74	89	71	93	73	89	65	94	74	91	69	90	74
16....	91	71	94	71	90	70	93	68	91	70	88	69	91	67	94	74	89	70	90	71	88	65	90	73	92	68	91	71
17....	88	69	94	72	86	69	86	69	88	69	86	70	84	68	94	73	87	70	89	70	85	66	90	72	90	68	86	71
18....	91	70	94	71	91	71	92	72	94	72	90	70	91	68	93	74	88	68	91	74	89	67	87	72	92	69	92	76
19....	94	70	96	73	93	72	93	74	90	72	91	72	95	68	93	75	89	72	94	74	85	68	93	75	94	72	88	73
20....	95	73	97	74	96	72	96	78	98	79	92	70	96	68	93	73	90	72	95	75	89	68	95	74	95	72	93	74
21....	97	75	98	73	97	75	93	73	100	71	91	71	97	65	95	72	88	74	94	76	89	67	94	76	92	73	93	74
22....	92	74	97	75	93	74	95	75	95	73	91	72	89	67	93	71	83	71	91	75	80	68	91	74	89	70	91	73
23....	91	73	95	72	92	71	92	74	95	72	90	70	92	67	92	72	86	70	90	75	85	65	89	72	91	69	88	72
24....	89	73	94	72	91	70	89	72	94	67	87	75	93	63	92	72	86	72	89	73	85	65	89	73	88	70	91	71
25....	89	69	93	74	92	71	88	74	92	67	87	67	91	66	93	71	84	66	88	68	84	66	91	72	92	68	88	73
26....	91	67	91	69	91	69	90	74	93	66	87	71	92	63	95	71	87	68	91	68	87	61	90	70	93	67	90	72
27....	89	73	95	74	92	70	93	79	93	70	88	68	93	64	93	73	86	66	88	73	90	65	90	73	91	64	91	69
28....	90	70	92	69	93	67	89	79	91	69	89	71	92	65	93	74	90	69	92	71	87	63	92	70	94	65	90	69
29....	92	72	96	72	94	71	93	74	95	70	90	71	93	63	92	70	89	72	92	74	88	63	92	72	94	67	93	73
30....	94	72	99	71	98	73	95	75	98	68	90	73	95	64	92	74	89	74	94	74	90	65	93	71	96	68	95	74
31....	98	74	101	73	97	72	95	74	101	70	91	74	99	66	96	74	91	73	98	76	91	67	96	72	94	69	97	77
Mns..	88.9	69.8	93.5	70.7	90.4	69.4	89.7	72.1	90.0[a]	66.1[a]	86.8	68.4	89.2	63.7	92.3	71.9	85.2	68.6	89.0	70.9	84.2	63.9	88.7	70.7	89.9	66.4	89.1	71 9

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 2*—Continued.

Date.	Georgia.						Florida.																			
	Thomasville.		Waycross §§		West Point.§§		Avon Park.		Fort Myers.		Gainesville.§§		Jacksonville.		Key West.		Miami.		Ocala.		Orlando.		Pensacola.		Tallahassee.§§		Tampa.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	86	72	88	72	85	67	93	73	90	75	84	70	84	72	89	81	91	76	83	71	88	76	83	73	83	72	88	80
2....	88	74	93	73	88	63	94	72	91	75	88	72	88	75	89	81	90	80	83	73	93	73	84	73	85	73	91	76
3....	86	70	85	74	84	68	94	74	87	72	90	71	85	75	90	81	89	79	85	71	92	74	81	70	81	73	89	76
4....	87	69	84	71	80	70	84	72	88	74	85	72	84	74	88	81	90	76	78	71	84	74	87	74	84	69	84	75
5....	80	68	81	67	76	64	93	73	86	76	86	72	82	71	89	80	89	78	85	72	85	75	83	72	78	71	84	73
6....	84	71	85	67	81	65	94	75	90	75	86	71	84	69	90	80	90	78	88	70	92	73	86	73	83	70	90	75
7....	84	72	85	73	82	68	95	67	92	77	90	71	90	73	88	82	90	78	88	71	91	71	86	76	84	71	92	75
8....	90	71	87	76	83	69	94	70	91	73	88	72	91	75	89	82	90	78	93	70	92	71	85	72	86	72	92	75
9....	92	70	93	71	87	69	91	71	92	74	92	69	92	74	90	81	90	75	90	69	90	70	87	76	90	70	92	73
10....	94	71	94	69	84	67	91	74	92	75	92	70	93	75	89	80	90	78	91	71	93	73	85	80	90	73	94	76
11....	93	71	96	72	80	68	89	73	92	75	92	72	93	77	89	79	89	78	90	72	92	73	87	75	89	72	94	69
12....	93	71	97	73	88	66	91	74	88	73	92	68	91	75	89	76	89	78	93	72	92	74	87	74	90	73	93	69
13....	92	70	95	71	90	69	88	74	91	74	91	67	89	77	89	71	90	75	92	71	87	73	86	74	88	70	88	70
14....	91	70	92	69	89	70	86	75	91	75	88	71	87	75	88	79	90	76	90	72	88	73	85	73	88	71	91	70
15....	93	72	95	71	88	71	89	69	90	75	92	70	90	75	89	80	90	79	92	70	91	74	87	75	90	72	91	71
16....	95	73	93	74	91	71	89	71	88	72	92	72	91	77	88	73	89	80	92	70	91	71	88	77	92	73	92	73
17....	92	72	93	73	88	72	91	71	90	74	91	73	92	77	87	77	89	77	92	70	91	73	89	77	90	72	91	74
18....	94	73	94	72	90	71	87	73	90	74	91	70	91	75	88	78	88	79	93	70	90	74	88	72	91	73	92	74
19....	95	73	93	74	92	72	90	73	89	74	92	70	90	74	87	78	88	81	92	69	92	74	89	77	90	74	92	75
20....	94	70	96	73	93	72	90	72	90	73	93	72	92	77	87	78	90	81	95	71	93	74	91	71	91	73	91	76
21....	92	69	92	71	94	75	92	70	89	73	93	72	93	72	88	79	87	74	95	74	93	74	89	79	90	70	88	76
22....	90	71	93	70	86	73	87	69	85	73	91	71	89	75	89	74	89	72	85	73	90	76	86	74	84	72	88	75
23....	85	71	87	71	87	69	89	70	88	70	83	70	85	75	88	80	89	73	84	72	89	74	84	70	80	73	86	73
24....	89	71	91	69	89	71	90	71	86	73	90	69	89	72	90	80	88	74	92	69	93	78	85	75	83	71	92	74
25....	86	71	84	73	90	71	90	72	88	74	90	70	85	73	89	81	89	79	88	71	91	74	87	73	82	72	89	73
26....	92	70	94	69	90	68	91	71	87	72	88	70	90	71	88	80	90	80	84	71	88	73	84	70	87	71	88	75
27....	82	72	90	73	87	69	91	72	89	74	85	72	89	76	88	74	89	72	90	71	88	73	81	69	78	73	87	75
28....	91	69	93	69	92	68	90	73	90	74	87	70	89	74	89	80	89	81	89	71	87	72	83	74	84	70	87	74
29....	92	70	97	69	91	70	92	72	88	73	91	68	92	73	89	74	90	69	92	69	90	72	85	76	85	71	91	73
30....	92	70	96	71	91	69	91	75	89	72	91	69	93	74	90	80	90	70	92	70	91	73	88	79	89	70	92	72
31....	95	72	97	72	95	70	92	73	90	73	94	71	94	76	89	76	89	81	95	71	93	75	89	78	90	73	94	76
Mns..	90.0	70.9	91.2	71.4	87.5	69.2	90.6	72.1	89.3	73.7	89.6	70.5	89.3	74.3	88.7	78.6	89.4	76.9	89.4	70.9	90.3	73.5	86.0	74.2	86.3	71.7	90.1	73.9

Date.	Alabama.																Mississippi.							
	Anniston.		Bermuda.		Birmingham.		Eufaula.§§		Mobile.		Montgomery.		Tuscaloosa.§§		Uniontown.		Columbus. §§		Jackson.		Laurel.		Meridian.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	85	61	90	71	86	68	87	70	86	74	90	72	91	71	93	70	91	72	92	70	93	68	89	70
2.....	88	60	91	70	89	66	90	70	85	73	92	69	93	63	92	69	96	64	93	69	93	70	90	69
3.....	88	67	87	72	86	70	85	70	85	74	89	71	94	64	89	73	93	66	93	70	91	72	89	72
4.....	80	66	85	72	80	62	83	67	86	72	84	70	84	67	85	65	83	65	85	67	86	70	79	64
5.....	79	63	81	68	82	61	76	64	85	71	82	65	88	61	86	68	88	58	85	58	88	60	84	59
6.....	80	68	90	65	82	66	83	64	88	71	85	68	87	63	88	69	89	61	91	64	92	65	85	64
7.....	76	69	91	69	84	71	83	68	86	78	86	72	87	68	90	71	91	69	91	73	93	72	88	69
8.....	84	68	92	73	87	68	84	68	89	69	90	69	93	72	88	69	90	69	90	73	92	70	88	72
9.....	85	68	91	68	84	65	86	65	89	76	90	69	89	72	90	70	86	70	89	69	91	70	88	68
10.....	82	68	92	69	81	67	87	66	89	77	88	69	84	68	87	72	87	67	88	70	90	67	85	68
11.....	77	68	92	67	80	67	85	65	88	74	83	68	82	68	89	67	92	67	92	68	88	68	87	67
12.....	88	63	91	67	88	66	87	67	90	73	90	68	92	66	89	66	94	67	93	68	91	67	89	67
13.....	89	68	91	67	89	69	88	66	89	72	89	71	90	67	90	69	92	69	92	68	92	67	88	68
14.....	90	69	91	70	89	72	86	67	90	74	90	72	93	70	90	70	92	70	93	70	94	70	89	71
15.....	91	69	94	70	88	72	88	68	91	75	91	74	93	72	92	73	91	72	94	70	94	70	91	72
16.....	90	67	95	71	88	70	88	70	92	74	90	73	93	70	94	71	95	70	94	70	95	70	91	73
17.....	89	69	91	72	86	71	87	70	90	75	92	71	95	70	94	72	95	72	96	72	97	71	90	73
18.....	92	68	90	69	89	70	87	69	93	72	90	71	93	72	94	70	96	71	94	73	96	70	90	70
19.....	92	71	94	72	92	73	89	68	93	74	92	75	97	73	95	73	96	72	94	71	97	71	92	72
20.....	93	72	95	71	92	74	90	70	94	77	94	74	98	73	96	75	98	73	96	73	98	72	94	73
21.....	90	72	93	72	90	73	91	72	90	69	91	75	95	75	94	75	94	74	96	74	96	72	93	74
22.....	85	71	89	71	87	72	86	67	90	71	86	71	93	74	90	74	90	75	89	74	94	71	87	72
23.....	88	72	86	69	88	70	86	69	88	70	88	70	93	71	92	69	95	69	95	72	95	72	92	71
24.....	85	68	90	70	87	69	86	69	87	72	92	71	93	71	93	70	94	69	96	73	96	70	93	72
25.....	89	66	90	69	88	68	85	67	86	74	90	71	93	68	92	70	92	68	92	71	93	70	89	70
26.....	90	69	91	69	88	68	86	63	88	71	92	69	95	70	91	70	93	69	93	69	95	69	91	70
27.....	88	63	86	70	87	66	82	67	87	71	84	71	91	68	92	69	92	65	91	68	92	65	87	68
28.....	92	66	89	68	91	69	86	68	87	73	92	69	96	69	92	68	95	66	93	68	93	67	89	68
29.....	92	68	90	69	89	72	86	68	85	75	90	71	93	70	94	68	95	69	95	71	96	69	89	71
30.....	92	67	92	69	89	70	88	69	88	76	92	71	94	70	94	69	96	70	95	72	96	71	91	73
31.....	94	68	94	69	92	73	89	68	92	75	95	75	98	71	97	74	99	72	97	73	97	70	94	73
Mns.....	87.2	67.5	90.5	69.6	87.0	69.0	86.1	67.7	88.6	73.3	89.3	70.8	91.9	68.9	91.4	70.3	92.6	68.7	92.5	70.0	93.4	69.2	89.1	69.8

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 3, OHIO VALLEY.

Prof. FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The weather conditions prevailing during August, 1912, in the Ohio Valley may be characterized as unusually cool, cloudy, and wet. In western Pennsylvania and West Virginia the mean temperature was the lowest for August since the establishment of climatological services in those States; also over adjoining States the average temperature was among the lowest on record for those sections. The most prominent features of the month were the remarkably low temperatures which prevailed during nearly the entire first week, but especially in the period 1st–5th, when temperatures as low as or lower than ever before recorded in the Ohio Valley during the first decade of August occurred; also the frequent rains and the exceptionally uniform distribution of precipitation over the district, especially during the second and third weeks.

The first half of the month was too cold and wet for the best development of plant growth, although the rains put the soil in good condition as regards moisture, but the last half was especially favorable on account of temperature and rainfall conditions being nearly normal and ideal. There were no general storms of consequence passing over the district, only a few shallow depressions crossing the Lake region. The weather conditions were largely dominated by high-pressure areas, and there was very little movement in the general circulation of the air. Thunderstorms were frequent and quite a few were damaging.

The following table summarizes the chief features of meteorological interest for the several sections of the district:

Portions of States included in the Ohio River Basin.	Temperature.				Precipitation.						
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest monthly.	Least monthly.	Greatest in 24 hours.	Average number of days.	Average snowfall.
New York	63.6	−2.3	86	39	5.01	+1.05	6.15	4.11	1.25	15	0
Pennsylvania	66.2	−2.9	90	38	5.50	+1.67	7.76	2.31	3.25	15	0
Maryland	63.6	−2.1	84	36	3.81	−0.07	4.06	3.39	0.97	15	0
West Virginia	69.5	−2.3	95	39	3.84	−0.10	11.70	1.21	4.20	11	0
Ohio	69.5	−2.3	95	40	4.19	+1.00	7.90	1.44	2.75	11	0
Indiana	72.4	−1.6	102	39	5.51	+2.27	12.00	2.90	3.06	12	0
Illinois	73.7	−1.3	100	40	4.75	+1.40	8.00	2.06	3.55	11	0
Kentucky	73.7	−2.0	98	43	4.71	+1.37	8.22	1.50	2.10	13	0
Tennessee	75.4	−0.6	99	43	4.10	+0.28	8.88	1.63	3.19	11	....
Alabama	77.5	−1.3	96	49	6.92	+3.28	8.36	5.30	2.65	11	0
Georgia	72.0	−1.1	88	52	5.56	−1.22	.....	.....	1.34	9	0
North Carolina	68.4	−0.7	95	38	3.13	−2.20	5.88	1.27	2.00	10	0
Virginia	67.6	−2.5	88	37	2.85	−1.77	5.03	1.18	1.12	12	0

TEMPERATURE.

The unseasonably cool weather which set in about July 26 continued through nearly the entire first and second weeks of August, it being about August 12 before temperatures had warmed up sufficiently to approach near normal conditions, while they did not pass above normal to any extent until the 17th. The first five or six days were remarkably cool for the season of the year, especially the 3d, 4th, and 5th, when mean daily temperatures ranged from 10° to 17° below normal, and minimum temperatures registered in the 40's and low 50's in practically all parts of the district, while at places in the more elevated sections in the eastern part as far south as North Carolina they were below 40°. The lowest temperature reported was 36° at Deer Park, Md. Light frost occurred in Johnson County, Tenn., on the morning of the 4th, and at Buchanan, W. Va., on the 5th.

Another feature of the temperature was the unusually low maximum readings for the various sections. In several of the sections of States in the district the maximum temperature did not reach as high as 90°, and at only one station in Illinois and one in Indiana was it as high as 100°. The temperature was above normal in the period 17th–20th, 25th–26th, and 29th–31st, the month closing with high temperatures prevailing generally. The mean temperature for the month as a whole averaged between 1° and 5° below normal at the various stations. This deficiency was due largely to the continuous cool weather of the first two weeks together with the fact that the nights were cool during the last two weeks.

PRECIPITATION.

The distribution of rainfall over the district was exceptionally uniform, and as a rule the aggregate for the month ranged between 3 and 6 inches. In a few sections, notably western Kentucky and south central Ohio, precipitation was deficient to a marked extent, but generally speaking, it was ample in amount and mostly above the normal for August. In some scattered localities it was excessive, amounting to between 7 and 12 inches. The average amount over central and southern Indiana was the greatest of record for August for those sections. At Vevay, Ind., 12 inches were received, which is one of the largest rainfalls for a summer month on record in that State. Excessive 24-hour falls occurred at several places and on various dates. The most important of these were: 3.30 inches at Equality and 3.55 inches at Shawneetown, Ill., 20th–21st; 3.25 inches at Skidmore, Pa., 26th; and 4.20 inches at Valley Fork, W. Va., 29th. Also 3.19

inches occurred at Chattanooga, Tenn., 22d, 2.98 inches of which fell in 46 minutes. The business portion of the city was flooded and a great torrent of water rushed down Lookout Mountain causing serious landslides at St. Elmo. At Highland, N. C., 2 inches of rain fell in one hour on the 25th.

MISCELLANEOUS.

August 10.—Lightning struck a barn, killing a valuable horse and doing much damage to the building at Glasgow, Ky.

August 11.—A severe local storm with tornadic characteristics passed across the northeastern part of Wayne County, Ohio. It occurred about 10.30 a. m. and was attended by a heavy downpour of rain. The path of the storm was about 100 yards wide extending in a southwest-northeast direction. Several barns and outbuildings were damaged, fruit and forest trees blown over and fences scattered about to a considerable extent. Observers report the appearance of a dark funnel-shaped cloud with rotary motion.

August 12.—Severe local thunderstorms passed over sections of Indiana, Illinois, Kentucky, and Tennessee. Mrs. Harry Gray was killed by lightning at Galveston, Ind. At Equality, Ill., lightning struck a barn killing one man, several head of live stock, and destroying the barn together with its contents of farm implements and grain. At Owensboro, Ky., a young woman was struck by lightning and seriously injured while lying on a bed, the lightning coming into the house over the telephone wires.

August 13.—Lightning struck a large lumber plant at Indianapolis, Ind., occasioning a loss of about $20,000.

August 14.—One man was killed and several barns were struck and burned by lightning in Somerset County, Pa. Also damaging storms visited various parts of Indiana, causing local damage to crops and buildings in many places. One man was killed by lightning in Decatur County, Ind.

August 15.—Two valuable horses were killed by lightning near Hodgenville, Ky.

August 18.—Damage resulted from heavy rains and local storms near Brazil in western Indiana. One man was drowned in attempting to cross a stream and a train ran into a washout and injured several persons.

August 19.—In Pennsylvania there was considerable damage in Washington and Westmoreland Counties, resulting mostly from overflowing of small streams due to excessive rains, and the damaging of buildings from lightning. Three persons lost their lives by drowning. Railroad embankments were washed away and there was also considerable loss to farmers from destruction of crops and erosion of soil. In Ohio a boy was killed by lightning at Portsmouth, a girl injured at Zanesville, and two barns burned in Champaign County.

August 23.—A severe local storm passed over Conneaut Lake and vicinity in Crawford County, Pa. This storm appears to have had tornadic characteristics and caused a waterspout as it passed over the lake. Barns were unroofed or demolished, trees and fences torn away, and several persons injured.

August 26.—In Ohio lightning destroyed six barns and one house in Guernsey County, one barn in Knox County, three barns in Portage County, three houses in Mahoning County, and several houses in Miami County; and on the 27th a large barn containing 30 tons of hay in Wayne County.

About 1 p. m. a storm passed over Elk Knob, Lee County, Va. The storm moved from the west, and the lightning attending it was remarkable for frequency and power. A number of trees were struck and several brood mares and their colts and four steers were killed. An unusually severe electrical storm caused considerable damage in Kenton County, Ky. Four barns were struck and burned with their contents.

August 31.—A severe hailstorm occurred in Elk County, Pa. Windows were broken and trees and crops injured. Lightning destroyed two barns and killed a boy in Perry County, Ohio. Also lightning struck a sheep barn at the Ohio State Fair, Columbus, Ohio, killing several head of valuable stock.

HEAT PROSTRATIONS.

The section director at Columbus, Ohio, furnishes the following account of heat prostrations on August 31:

During a children's pageant on the occasion of the centennial celebration at Columbus, Ohio, there occurred a remarkable series of heat prostrations. The exercises were held during the forenoon in the large athletic field of Ohio State University. At about 11 o'clock several persons scattered through the crowd were noticed to faint. These were quickly followed by others until 75 or more were prostrated and required aid from those about them. Among the number were 12 members of the State guards, who had been patrolling the grounds and giving relief to others. Fortunately none of the cases proved to be serious and the most of those affected recovered within an hour or two. The prostrations were due undoubtedly to the manner in which the people were crowded together and exposed to the direct rays of a midday August sun. Banks of seats, many of which were without protection, surrounded the field, and a grove cut off the westerly breeze that was blowing at about 15 miles per hour. Every seat was occupied and hundreds were standing and it is estimated fully 15,000 people were crowded within the inclosure. The temperature at the Weather Bureau station, 3 miles distant, was 87° at 11 o'clock and 88° at noon. The humidity at the Weather Bureau station ranged between 60 and 65 per cent at the time of the prostrations.

TABLE 1.—*Climatological data for August, 1912. District No. 3, Ohio Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Allegany	Cattaraugus	1,441	6	64.0	.....	86	25	39	17	38	6.15	.....	1.25	0	15	1	11	19	nw.	Charles E. Whitney.
Bolivar	Allegany	1,800	18	63.1	− 2.3	85	25	39	17†	31	4.77	+1.05	0.73	0	17	1	17	13	w.	Dr. C. F. Hoffman.
Olean	Cattaraugus	1,402	4	.....	.....	.....	.....	.....	.....	.....	4.11	.....	0.60	0	13	.....	.....	.....	.....	John W. Alles.
Pennsylvania.																				
Aleppo	Green	1,135	11	67.1	− 3.1	88	31	39	5	36	2.31	− 0.79	0.49	0	12	5	12	14	sw.	J. S. Hinerman.
Baldwin	Butler	1,404	6	64.9	.....	86	25	42	4	29	5.75	.....	2.34	0	15	1	16	14	w.	S. H. Templeton.
Beaver Dam	Beaver	674	18	.....	.....	.....	.....	.....	.....	.....	4.22	+ 0.40	1.05	0	13	6	6	19	sw.	U. S. Engineer.
Brookville	Jefferson	1,173	21	63.2	.....	87	8	39	5†	43	7.72	+ 3.91	2.00	0	18	.....	.....	.....	w.	H. C. Bartholomew.
Clarion	Clarion	1,078	27	.....	.....	.....	.....	.....	.....	.....	4.85	+ 1.26	2.62	0	10	4	0	24	w.	J. A. Miller.
Claysville	Washington	1,127	8	68.5	.....	90	31	40	5	36	4.65	.....	1.04	0	18	11	13	7	w.	E. T. Buchanan.
Confluence	Somerset	1,352	28	.....	.....	.....	.....	.....	.....	.....	4.99	+ 1.26	1.52	0	13	9	5	17	w.	Grant Pyle.
Franklin	Venango	955	38	66.2	− 2.6	86	26†	44	28	34	7.43	+ 3.78	1.70	0	19	13	1	17	nw.	F. E. Dixon.
Freeport	Armstrong	772	39	.....	.....	.....	.....	.....	.....	.....	5.30	+ 1.72	0.82	0	17	10	3	18	.....	Mrs. Anna R. Burtner.
Greensboro	Green	768	23	.....	.....	.....	.....	.....	.....	.....	4.48	+ 1.35	0.80	0	14	8	11	12	sw.	James G. Cramer.
Greenville	Mercer	950	16	65.5	− 1.7	89	25†	39	4	41	6.88	+ 3.32	2.40	0	15	15	9	7	nw.	A. M. Orr.
Indiana	Indiana	1,350	15	67.4	− 2.1	88	25†	41	5	37	5.67	+ 1.68	0.66	0	20	8	18	5	w.	R. W. Wehrle.
Johnstown	Cambria	1,184	24	69.0	− 2.2	90	25	46	5†	34	5.28	+ 0.71	1.10	0	18	7	17	7	sw.	E. C. Lorentz.
Lock No. 4	Washington	718	26	.....	.....	.....	.....	.....	.....	.....	4.45	+ 1.16	1.25	0	13	1	16	14	s.	R. T. McGowan.
Lycippus	Westmoreland	1,420	20	66.0	− 5.0	82	31	46	28	27	5.41	+ 1.38	1.83	0	15	.....	.....	.....	.....	Murray Forbes.
Pittsburgh	Allegheny	842	42	68.8	− 3.7	87	18	48	28	24	2.39	− 0.79	0.64	0	13	4	17	10	sw.	U. S. Weather Bureau.
Saegerstown	Crawford	1,116	21	64.2	− 3.0	85	31	40	5†	32	4.86	+ 0.77	1.36	0	14	4	10	17	nw.	J. G. Apple.
Skidmore	Lawrence	1,000	8	66.0[a]	.....	87	18	40	4	37	6.90	.....	3.25	0	10	17[a]	6[a]	7[a]	s.	W. H. Stoner.
Somerset	Somerset	2,250	56	63.6	− 3.3	84	18	38	5	32	6.77	+ 2.05	1.10	0	15	0	15	16	sw.	W. M. Schrock.
Uniontown	Fayette	999	24	69.4	− 2.2	89	18	46	5	27	7.76	+ 3.38	1.34	0	19	1	12	18	nw.	Wm. Hunt.
Warren	Warren	1,137	23	63.7	− 3.5	85	25	40	28†	36	7.48	+ 3.55	2.00	0	16	9	0	22	w.	Anna Simpson.
Maryland.																				
Deer Park	Garrett	2,457	18	62.8	− 2.5	84	18	36	5	33	3.39	− 0.08	0.97	0	11	.....	.....	.....	.....	S. P. Specht.
Grantsville	.....do	2,351	18	64.0	− 2.6	83	18†	38	5	33	4.06	+ 0.20	0.85	0	13	2	24	5	.....	J. S. Miller.
Oakland	.....do	2,461	12	64.1	− 1.3	83	18†	37	5†	33	3.97	− 0.34	0.93	0	20	3	4	24	w.	R. E. Weber.
West Virginia.																				
Bancroft	Putnam	574	10	73.8	− 0.4	94	14†	48	6	40	4.83	+ 0.06	1.37	0	10	9	0	22	ne.	R. E. Dent.
Beckley	Raleigh	2,440	12	64.8	− 5.3	85	16†	39	5	43	3.35	+ 0.57	1.48	0	5	11	11	9	w.	John A. Ewart.
Bens Run	Tyler	622	10	71.8	− 2.1	91	18	50	5	30	3.63	− 0.03	1.07	0	9	19	9	3	.....	J. D. Riggs.
Bluefield	Mercer	2,563	17	69.0	− 2.5	85	31	44	5	31	4.70	+ 0.41	0.75	0	20	6	16	9	.....	Norfolk & Western Ry.
Buckhannon	Upshur	1,472	21	67.8	− 2.6	87	18	40	5	33	2.61	− 1.09	0.47	0	11	21	6	4	.....	H. A. Darnall.
Cairo	Ritchie	667	10	71.0	− 1.7	90	18†	45	5	31	3.30	− 0.12	1.15	0	12	0	19	12	w.	Van A. Zevely.
Central Station	Doddridge	900	11	69.6	− 1.8	89	18†	43	5	33	2.60	− 0.78	0.96	0	13	3	19	9	w.	G. W. Sherwood.
Charleston	Kanawha	598	24	73.1	.....	89	18	50	5	25	5.49	+ 1.25	1.24	0	12	12	16	3	w.	R. C. Hewes.
Creston	Wirt	612	11	70.2	− 3.1	93	31	45	5	33	2.56	− 0.52	0.60	0	12	8	12	11	sw.	J. M. Reed.
Cuba	Jackson	544	10	70.2	− 1.7	89	18†	43	5	32	2.57	− 0.47	0.68	0	7	3[a]	27[a]	0[a]	w.	C. T. Perry.
Doane	Wayne	.....	6	72.8[i]	.....	95	31[i]	47	3	35[i]	5.13	.....	2.20	0	9	13	18	0	.....	L. A. Smith.
Elkhorn	McDowell	1,933	19	68.8	− 2.4	85	31	43	4	32	4.10	+ 0.55	0.90	0	9	10	19	2	sw.	J. J. Lincoln.
Elkins	Randolph	1,940	13	67.0	− 1.0	86	31	42	5	31	3.30	− 0.35	0.89	0	15	4	10	17	w.	U. S. Weather Bureau.
Fairmont	Marion	879	18	70.8	.....	93	18	47	5	35	2.02	− 1.46	0.57	0	12	15	9	7	s.	F. P. Hall.
Glenville	Gilmer	738	22	73.4	+ 0.2	94	11	47	5	42	4.62	+ 0.75	1.21	0	9	15	4	12	sw.	Joe N. Craddock.
Grafton	Taylor	985	18	70.2	− 1.3	91	18	45	5	32	3.13	− 0.80	0.48	0	21	10	10	11	w.	Joseph Gerken.
Green Sulphur Springs	Summers	1,600	16	68.8	− 3.0	87	14†	41	5	33	2.81	− 0.27	0.75	0	13	4[a]	14[a]	12[a]	w.	Arthur George.
Hinton	.....do	1,400	21	71.8	− 2.4	92	14	49	5	32	4.00	+ 0.22	1.74	0	14	16	4	11	w.	J. B. Lavender, C. E.
Holcomb	Nicholas	.....	1	66.8	.....	85	14†	40	4†	33	4.39	.....	1.22	0	6	11	10	10	.....	R. E. Ferguson.
Huntington	Cabell	510	17	72.4	− 2.4	89	18†	50	5	28	6.20	+ 2.63	2.28	0	13	13	4	14	w.	L. H. Hutchinson.
Lewisburg	Greenbrier	2,200	11	67.7	− 2.6	85	15	40	4	33	1.21	− 2.35	0.24	0	9	27	4	0	nw.	Geo. T. Argabrite.
Logan	Logan	665	10	73.1	− 0.7	90	17†	51	5	27	4.04	+ 0.49	0.97	0	16	19	11	1	e.	Dr. J. E. McDonald.
Lost Creek	Harrison	1,033	15	67.0	− 4.1	88	18	41	5	35	2.72	− 1.46	0.70	0	10	15	6	10	w.	Allen Smith.
Madison	Boone	704	8	73.0[d]	.....	90	17†	50	5[d]	31[d]	4.56	.....	1.52	0	14	11[e]	16[e]	1[e]	.....	S. E. Bradley.
Mannington	Marion	967	11	68.0	− 3.2	87	18†	45	5	32	2.03	− 1.48	0.38	0	14	11	12	8	w.	Jas. A. Morgan.
Marlinton	Pocahontas	2,169	17	66.0	− 2.3	86	31	40	4†	34	1.88	− 2.82	0.73	0	6	20	11	0	.....	C. J. McCarty.
Morgantown	Monongalia	1,250	36	68.8[a]	− 3.5	87	31[e]	45	5[e]	27[e]	2.44	− 1.73	0.78	0	8	13[a]	12[a]	5[a]	s.	Horace Atwood.
Moundsville	Marshall	640	10	70.6	− 2.1	91	18†	47	4†	32	2.02	− 0.98	0.35	0	10	12	5	14	nw.	M. L. Brown.
New Cumberland	Hancock	987	14	68.2	− 2.6	91	18†	44	4	33	3.08	− 0.26	0.90	0	10	3	2	26	s.	Frank S. Evans.
New Martinsville	Wetzel	634	18	71.8	− 2.9	92	18†	50	4†	31	3.96	+ 1.10	1.18	0	9	15	8	8	s.	Wm. Ankron.
Nuttallburg	Fayette	2,252	18	.....	.....	.....	.....	.....	.....	.....	3.96	+ 0.78	1.20	0	9	.....	.....	.....	.....	Miss Donna Tully.
Parkersburg	Wood	638	24	72.2	− 1.1	91	31	49	5	26	3.05	− 0.48	0.94	0	12	7	13	11	s.	U. S. Weather Bureau.
Parsons	Tucker	1,662	12	66.2	− 3.2	85	31	44	5	29	4.45	+ 0.89	0.85	0	18	6	24	1	.....	J. W. Swisher.
Philippi	Barbour	1,192	18	69.1	− 2.7	88	18†	44	5	32	3.41	− 0.48	0.54	0	17	11	14	6	w.	J. D. Dadisman.
Pickens	Randolph	2,785	20	64.6	− 2.5	79	31	41	4	26	5.65	+ 0.85	1.16	0	13	7	18	6	w.	Dr. J. L. Cunningham.
Point Pleasant	Mason	553	21	73.0	− 1.9	93	18†	47	5	33	2.91	− 0.30	0.99	0	9	11	3	17	se.	W. D. Holmes.
Powellton	Fayette	904	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Morris Hansford.
Princeton	Mercer	2,469	10	64.5	− 2.6	79	31	43	5	27	4.85	− 0.20	1.25	0	14	9	19	3	w.	H. Scott.
Robertsburg	Putnam	574	11	71.6	− 3.1	94	17	46	5	35	6.11	+ 2.98	3.47	0	10	11	0	20	.....	E. P. Turley.
Ryan	Roane	639	10	69.6	− 2.4	90	31	40	5	35	4.70	+ 0.53	1.50	0	12	9	19	3	.....	Wm. E. Ryan.
Smithfield	Wetzel	919	8	66.7	.....	85	17	45	5	30	2.32	.....	0.72	0	10	17	9	5	ne.	G. M. Whisler.
Spencer	Roane	710	13	70.2	.....	88	31	43	5	36	2.63	− 0.63	0.59	0	9	0	24	7	.....	A. M. McKown.
Sutton	Braxton	839	10	.....	.....	.....	.....	48	3[e]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. E. Baughman.
Terra Alta	Preston	3,207	12	62.5	− 5.2	78	17	39	5	28	2.76	− 2.11	0.70	0	9	5	20	6	w.	W. B. Elliott.
Union	Monroe	.....	9	67.6	.....	87	14†	41	2	37	3.38	.....	1.04	0	11	.....	.....	.....	.....	Shelton Clark.
Valley Fork	Clay	.....	9	71.4	.....	92	6†	41	26	40	11.70	.....	4.20	0	7	2	26	3	.....	Miss Blanche Pierson.
Webster Springs	Webster	1,500	7	69.4	.....	86	31	45	3	26	4.75	.....	1.20	0	12	8	14	9	sw.	D. H. Hamrick.
Wellsburg	Brooke	1,225	12	66.8	− 3.5	83	18†	47	5	23	6.59	+ 3.12	1.83	0	....	5	16	7	w.	C. P. Waugh.
Weston	Lewis	824	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss C. M. Davis.
Wheeling	Ohio	645	26	69.6	.....	90	18†	47	3	36	2.56	− 0.92	0.47	0	12	11	11	9	s.	Miss M. B. Forsyth.
Williamson	Mingo	660	11	72.9	− 2.4	90	17†	50	5	29	3.84	+ 0.43	1.12	0	16	11	12	8	w.	J. F. Keyser.
Ohio.																				
Amesville	Athens	630	8	71.0[a]	.....	92[b]	17†	44	5	36[b]	5.21	.....	2.00	0	13	13	16	2	.....	F. W. Gibson.
Bangorville	Richland	1,380	25	68.2	− 2.0	89	18†	44	4	30	2.59	− 0.58	0.58	0	11	3	21	7	sw.	S. M. Painter.
Bellefontaine	Logan	1,276	33	68.4	− 3.2	90	31	42	5	33	2.05	− 1.32	0.45	0	10	10	7	14	s.	Cory L. Lane.
Bladensburg	Knox	1,100	21	66.8[b]	− 3.2	87[b]	18†	40[b]	4	....	2.46	− 0.21	0.81	0	7	.....	.....	.....	sw.	Miss Mary Elliott.
Cadiz	Harrison	1,245	9	69.2	.....	89	18†	46	5†	29	5.94	.....	2.45	0	12	8	12	11	nw.	Harry B. McConnell.
Cambridge	Guernsey	803	20	67.6	− 3.1	88	18†	40	5	33	3.90	+ 0.96	1.52	0	11	6	24	1	.....	Samuel Mehaffey.

TABLE 1.—*Climatological data for August, 1912. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Continued.																				
Camp Dennison	Hamilton	570	19	72.8	− 2.1	94	18	44	4†	37	4.86	+ 2.06	1.43	0	15	13	16	2	sw.	Henry F. Pinkvoss.
Canal Dover	Tuscarawas	884	19	67.7	− 2.9	88	18†	42	5	35	5.17	+ 2.21	1.55	0	11	5	22	4	sw.	Ed. S. Slingluff.
Canton	Stark	1,089	29	66.9	− 2.7	89	18	43	4†	35	4.10	+ 0.76	0.87	0	14	13	5	13	sw.	Carl H. Meyer.
Cardington	Morrow	1,010	17	68.5[e]	− 1.5	91[e]	18	43[e]	5	32[e]	3.43	+ 0.86	0.83	0	7	18	0	13	nw.	J. W. Shaw.
Chillicothe	Ross	630	9	.....	.....	.....	.....	.....	.....	.....	1.78	.....	0.95	0	4	.....	.....	.....	.....	Marion Mackey.
Cincinnati	Hamilton	628	41	73.8	− 1.7	92	18	52	4	31	5.00	+ 1.67	1.93	0	14	2	18	11	sw.	U. S. Weather Bureau.
Circleville	Pickaway	694	24	72.0	− 1.3	95	18	45	5	32	3.73	+ 0.59	1.30	0	12	10	7	14	sw.	Dr. H. R. Clarke.
Clarington	Monroe	600	9	69.2	.....	90	18†	45	4†	34	2.97	.....	0.62	0	11	5	7	19	sw.	Col. S. Tschappat.
Columbus	Franklin	918	34	70.7	− 2.3	90	31	49	4	26	2.25	− 0.97	0.44	0	15	4	12	15	sw.	U. S. Weather Bureau.
Coshocton	Coshocton	770	3	.....	.....	.....	.....	.....	.....	.....	4.00	.....	1.07	0	12	.....	.....	.....	.....	Mrs. Ada Jeffries.
Dayton (1)	Montgomery	899	....	71.0	− 2.4	90	18†	48	4†	27	6.64	+ 3.63	2.47	0	14	2	11	18	sw.	U. S. Weather Bureau.
Dayton (2)	.....do	790	31	71.6	− 2.0	94	18	43	4†	34	6.34	+ 3.26	2.07	0	17	.....	.....	.....	.....	Mrs. Edith L. Boyer.
Delaware	Delaware	896	15	69.9	− 1.9	90	19†	41	5	35	2.58	− 0.77	0.88	0	10	14	14	3	w.	De Witt H. Leas.
Demos	Belmont	1,325	24	68.2[a]	− 3.1	90	31	45	4	29	3.57	− 0.15	0.91	0	12	14	12	5	s.	J. T. Dysart.
Dennison	Tuscarawas	846	2	69.8	.....	90	18†	44	5	34	3.39	.....	1.19	0	11	6	24	1	s.	Water Supply Co.
Frankfort	Ross	745	20	71.7	− 0.9	93	19	45	5	33	1.44	− 1.78	0.66	0	4	18	6	7	s.	O. A. Cory.
Gallipolis	Gallia	580	....	.....	.....	.....	.....	.....	.....	.....	3.18	.....	1.25	0	7	.....	.....	.....	s.	Samuel F. Neal.
Garretsville	Portage	1,005	28	65.4	− 1.6	88	31	41	4	33	5.89	+ 2.41	1.96	0	15	5	15	11	nw.	S. M. Luther.
Granville	Licking	960	30	69.6	− 1.4	91	19†	42	5	35	2.95	+ 0.14	0.55	0	16	11	11	9	w.	Dr. L. E. Davis.
Gratiot	.....do	1,000	23	68.5	− 2.3	88	19†	44	5	29	4.41	+ 1.23	1.33	0	12	9	21	1	w.	W. B. Longstreth.
Green	Adams	500	19	72.5	− 2.2	91	31	52	3	30	5.82	+ 2.38	2.22	0	11	13	14	4	w.	W. F. Kenyon.
Green Hill	Columbiana	1,135	19	64.8	− 3.9	85	18†	40	4†	32	4.59	+ 1.33	1.11	0	14	6	21	4	sw.	Jos. E. Bentley.
Greenville	Darke	1,060	26	69.8	− 1.2	90	18	46	5	27	5.08	+ 1.77	1.53	0	11	12	3	16	sw.	Geo. A. Katzenberger.
Hamilton	Butler	601	....	.....	.....	.....	.....	.....	.....	.....	4.24	.....	0.98	0	11	8	11	12	.....	Earl W. Stout.
Haydenville	Hocking	700	....	70.6[a]	.....	94	18	44	5	41	4.45	.....	2.15	0	10	14	14	3	sw.	H. W. Stiers.
Hillsboro	Highland	1,063	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Carey H. Roush.
Ironton	Lawrence	575	29	73.8	+ 0.5	95	18	47	5	35	5.33	+ 1.39	1.78	0	11	14	13	4	sw.	James Bull.
Kenton	Hardin	1,015	20	.....	.....	.....	.....	.....	.....	.....	4.29	+ 1.89	1.21	0	9	14	17	0	w.	N. S. Martin.
Killbuck	Holmes	1,087	19	68.0	− 3.0	88	19	42	5	34	3.30	0.0	0.74	0	14	22	8	1	se.	Lloyd C. Schonauer.
Kings Mills	Warren	640	....	.....	.....	.....	.....	.....	.....	.....	7.01	.....	2.18	0	9	16	3	12	sw.	Frank M. See.
Lancaster	Fairfield	898	17	70.2	− 1.5	92	31	45	5	28	3.65	+ 0.57	1.10	0	8	17	8	6	sw.	R. L. Renshaw.
McConnelsville	Morgan	710	28	69.6	− 2.2	90	31	46	5	30	4.79	+ 1.56	1.21	0	11	8	15	8	sw.	C. H. Morris.
Marietta	Washington	627	92	71.7	− 0.3	92	18	48	5	31	2.80	− 0.96	1.22	0	12	6	14	11	s.	Prof. T. D. Biscoe.
Marion	Marion	980	34	70.2	− 1.7	91	18	42	4†	34	5.06	+ 2.11	1.70	0	8	3	20	8	sw.	Dr. E. H. Raffensperger.
Milfordton	Knox	1,200	20	68.0	− 2.5	90	18	41	5	33	2.38	− 0.46	0.85	0	8	19	10	2	sw.	L. H. Burgess.
Milligan	Perry	875	19	69.5	− 2.4	90	18†	43	5	33	4.75	+ 1.95	1.75	0	9	10	21	0	sw.	V. C. Eveland.
Millport	Columbiana	1,145	19	66.3	− 2.9	85	18†	41	4†	31	4.45	+ 1.21	1.70	0	12	1	25	5	sw.	G. F. Copeland.
Nellie	Coshocton	850	12	68.4	− 3.0	90	31	40	4	40	4.02	+ 0.33	1.30	0	9	6	19	6	s.	Ethel L. Gammertsfelder.
New Alexandria	Jefferson	1,050	27	69.5	− 1.6	90	31	44	4	39	5.08	+ 1.51	1.50	0	8	9	10	12	w.	Mrs. Mary K. Pennell.
New Berlin	Stark	1,100	19	66.3	− 4.7	86	20†	41	17	33	4.09	+ 0.64	0.55	0	14	17	8	6	n.	Clayton Holl.
New Waterford	Columbiana	1,053	17	66.4	− 3.0	87	31	41	4†	33	5.13	+ 1.44	1.40	0	12	12	14	5	sw.	Sam. C. Scott.
Ohio State University	Franklin	757	29	70.4	− 0.7	91	31	43	31	31	2.81	− 0.12	0.90	0	17	12	13	6	s.	Prof. H. C. Lord.
Oregonia	Warren	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. H. Stephens.
Pataskala	Licking	1,015	20	69.6	− 2.3	90	31	43	5	32	4.20	+ 0.92	1.11	0	16	3	27	1	sw.	J. N. Ridenour.
Peebles	Adams	645	1	71.2	.....	92	18	42	5	37	7.90	.....	2.38	0	11	14	11	6	w.	Ora O. Smalley.
Philo	Muskingum	1,018	17	69.4	− 3.7	91	31	44	5	29	5.08	+ 2.32	2.25	0	11	14	16	1	sw.	L. C. Burckholter.
Piqua	Miami	847	2	.....	.....	.....	.....	.....	.....	.....	2.47	.....	0.49	0	11	9	8	14	se.	Harry L. Roberts.
Plattsburg	Clark	1,130	19	69.4	− 2.8	89	31	43	3	31	3.55	+ 1.07	0.85	0	11	11	16	4	w.	F. E. Stewart.
Portsmouth	Scioto	527	81	72.8	− 1.5	91	18†	48	5	30	5.36	+ 1.90	2.33	0	10	8	2	21	sw.	Dr. H. A. Schirrmann.
Prospect	Marion	909	2	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.20	0	6	.....	.....	.....	.....	Neil J. Gast.
Shenandoah	Richland	1,100	20	66.8	− 3.1	88	31	44	5	30	2.51	− 0.70	0.73	0	11	2	27	2	sw.	T. B. Arnett.
Sidney	Shelby	985	29	69.7	− 2.8	90	25†	42	4†	39	2.86	+ 0.03	0.60	0	16	8	10	13	sw.	Hamline B. Blake.
Somerset	Perry	1,080	13	70.6	− 2.9	92	18†	48	5	31	2.33	− 1.11	0.78	0	12	15	11	5	s.	Miss M. W. C. Sheridan.
Springfield	Clark	980	18	.....	.....	.....	.....	.....	.....	.....	3.04	+ 0.56	0.47	0	16	3	25	3	sw.	W. A. Webster.
Summerfield	Noble	1,187	6	68.6[a]	.....	91[a]	18	41[a]	5	34[b]	4.06	.....	1.20	0	11	4	21	6	sw.	H. R. McClintock.
Syracuse	Meigs	583	1	72.2	.....	91	18†	48	4	33	4.25	.....	1.60	0	8	22	6	3	w.	Irving R. Karr.
Thurman	Gallia	696	19	71.5	− 3.4	90	31	47	5	31	2.15	− 0.72	1.10	0	4	11	14	6	.....	D. D. Thomas.
Urbana	Champaign	1,031	44	70.6	− 1.0	91	31	41	5	36	4.59	+ 1.31	1.27	0	15	5	25	1	sw.	Prof. J. H. Williams.
Warren	Trumbull	900	23	67.4[b]	− 2.5	89[b]	25	43[b]	4	33[b]	6.23	+ 3.02	1.66	0	12	7	11	13	sw.	M. D. McCorkle.
Waverly	Pike	590	29	70.9	− 2.8	92	18	46	5	33	2.42	− 0.97	0.68	0	11	5	2	24	s.	Dr. Peru Hutt.
Waynesville	Warren	700	27	70.0	− 2.8	88	18†	48	5	29	6.09	+ 2.26	2.72	0	13	8	18	5	sw.	Charles Michener.
Wooster	Wayne	1,030	33	67.2	− 1.7	89	18	41	5	34	7.32	+ 4.30	2.75	0	16	9	12	10	sw.	Experiment Station.
Youngstown	Mahoning	846	19	.....	.....	.....	.....	.....	.....	.....	7.76	+ 4.64	2.00	0	14	13	1	17	sw.	G. R. Patton.
Zanesville	Muskingum	700	25	.....	.....	.....	.....	.....	.....	.....	4.40	+ 1.52	2.53	0	12	16	2	13	s.	S. G. Sprague.
Indiana.																				
Anderson	Madison	892	17	71.0	− 2.0	91	31	45	4	33	6.15	+ 2.26	1.43	0	15	12	11	8	sw.	W. H. Stanton.
Attica	Fountain	522	2	.....	.....	.....	.....	.....	.....	.....	3.85	.....	1.25	0	9	.....	.....	.....	.....	Robt. E. Ray.
Bloomington	Monroe	744	17	71.6	− 3.3	92	18	46	4†	37	8.02	+ 4.40	2.26	0	13	10	10	11	sw.	Earl E. Ramsey.
Bluffton	Wells	835	17	70.8	− 1.3	92	25	44	4†	36	3.51	+ 0.31	1.07	0	13	10	17	4	w.	Tom R. Johnston.
Butlerville	Jennings	767	27	72.9	− 1.6	92	18	44	4	32	8.51	+ 5.00	2.06	0	14	16	8	7	.....	C. F. Hole.
Cambridge City	Wayne	941	21	70.0	− 1.6	92	18	41	5	37	4.17	+ 1.25	1.28	0	12	11	0	20	s.	Heze Barnett.
Columbus	Bartholomew	632	29	72.2	− 1.5	92	18†	42	4	37	5.59	+ 2.29	1.98	0	14	16	3	12	sw.	John A. Perry.
Connersville	Fayette	769	30	72.7	+ 0.7	94	18†	41	5	44	5.49	+ 2.59	1.90	0	7	1	27	3	sw.	H. T. Swindler.
Crawfordsville	Montgomery	780	2	72.8	.....	96	31	43	4†	40	7.18	.....	3.00	0	10	7	19	5	sw.	P. H. Burns.
Delphi	Carroll	668	27	71.2	− 0.6	97	31	42	4	32	3.91	+ 0.84	0.89	0	10	7	10	14	.....	L. A. Higginbotham.
Eminence	Morgan	782	6	70.7[b]	.....	90[b]	18	44[b]	4	33[b]	3.87	.....	1.70	0	6	10[b]	16[b]	3[b]	sw.	E. E. Kelso, M. D.
Evansville	Vanderburg	386	36	75.3	− 1.7	92	19	53	4	26	4.00	+ 0.76	1.25	0	13	11	19	1	sw.	U. S. Weather Bureau.
Farmersburg	Sullivan	.....	14	72.4	− 3.1	91	18†	48	4	32	5.54	+ 2.69	1.25	0	13	4	24	3	s.	Miss Carrie Yeager.
Farmland	Randolph	1,101	30	68.8	− 2.4	88	31	47	4†	30	5.15	+ 1.49	1.15	0	12	10	0	21	nw.	W. J. Davisson.
Forest Reserve	Clark	478	....	.....	.....	.....	.....	.....	.....	.....	7.34	.....	2.59	0	13	.....	.....	.....	.....	Ambrose Waltman.
Greenfield	Hancock	905	9	71.6	.....	90	31	46	4	31	7.15	.....	1.35	0	10	0	28	3	sw.	Frank Larrabee.
Greensburg	Decatur	954	16	71.3	− 3.1	90	18	45	5	30	6.15	+ 3.92	2.25	0	8	14	15	2	sw.	C. C. Morrison, M. D.
Hickory Hill	Brown	.....	....	76.1	.....	96	18	52	4	30	4.77	.....	1.44	0	13	.....	.....	.....	.....	Benjamin W. Douglass.
Huntingburg	Dubois	462	4	79.2	.....	95	18†	39	5	43	4.87	.....	1.54	0	9	.....	.....	.....	.....	H. Dufendach.
Huntington	Huntington	741	19	71.0	− 1.5	93	31	46	3†	32	3.53	+ 0.10	1.36	0	11	20	7	4	sw.	Chas. McGrew.
Indianapolis	Marion	822	41	72.0	− 1.6	90	18	49	4	30	3.12	− 0.21	1.00	0	11	6	15	10	sw.	U. S. Weather Bureau.
Jeffersonville	Clark	455	30	74.9	− 1.2	93	31	49	5	33	5.23	+ 1.95	0.87	0	13	13	16	2	sw.	John C. Loomis.
Judyville	Warren	450	5	70.0[e]	.....	102[e]	26	43[e]	4	41[e]	5.58	.....	1.65	0	13	11[a]	9[a]	10[a]	sw.	Dale R. Warrick.
Kokomo	Howard	840	20	70.2	− 2.4	91	31	42	3†	37	3.37	− 0.03	0.61	0	11	9	17	5	sw.	P. H. Robertson.
La Fayette	Tippecanoe	617	33	71.0	− 1.6	92	31	47	4†	32	3.98	+ 0.66	1.27	0	12	16	9	6	se.	Wm. J. Jones, jr.
Laurel	Franklin	.....	1	70.2	.....	90	17†	40	5	41	6.44	.....	1.43	0	10	10	21	0	sw.	Paul Schultze.
Logansport	Cass	620	32	72.2	− 0.3	98	18†	43	4†	39	2.90	+ 0.07	0.64	0	10	13	5	13	e.	Chas. Massena.
Madison	Jefferson	460	20	75.3	− 1.2	94	18	47	5	36	8.14	+ 5.41	2.07	0	13	10	17	4	sw.	Miss F. Cooperider.
Marengo	Crawford	363	30	70.8	− 3.9	91	18	43	14†	45	7.26	+ 3.31	1.80	0	.....	.....	.....	.....	sw.	J. M. Johnson.
Marion	Grant	814	26	70.8	− 1.6	94	31	44	3	35	4.88	+ 1.82	1.78	0	11	9	5	17	n.	James F. Hood.

TABLE 1.—*Climatological data for* ***August****, 1912. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Indiana—Continued.																				
Mauzy	Rush	980	32	70.5	− 0.5	91	31	40	5	36	5.26	+ 2.28	2.35	0	11	6	13	12	sw.	Elwood Kirkwood.
Monticello	White	674	2								4.79		1.00	0	8	16	7	8	s.	J. E. Loughry.
Moores Hill	Dearborn	980	11	72.2	− 2.3	90	17†	44	4	33	6.28	+ 3.00	3.40	0	13	17	6	8	w.	W. S. Bigney.
Mount Vernon	Posey	410	26	75.0	− 2.9	94	31	50	4	33	4.12	+ 1.03	1.05	0	13	21	1	9	sw.	Guy B. Green.
Nashville	Brown			72.8		92	19	42	5	39	3.95		1.02	0	10	5	19	7	w.	W. C. Goble.
Paoli	Orange	611	15	73.4	− 2.0	94	18	43	5	40	5.72	+ 2.02	1.27	0	17	10	19	2	sw.	James A. Gillum.
Princeton	Gibson	481	30	75.6	+ 0.2	96	18†	49	5	35	4.84	+ 1.67	1.73	0	10	19	5	7	sw.	Albert Mills.
Richmond	Wayne	972	27	70.0	− 1.1	90	18†	42	5	34	5.24	+ 1.50	1.58	0	15	5	25	1	.....	Walter Vossler.
Rochester	Fulton	775	7	69.6		90	31	45	5	27	4.94		2.90	0	11	11	8	12	.....	G. P. Keith.
Rockville	Parke	722	26	73.0	0.0	96	31	46	4†	57	4.81	+ 1.93	2.81	0	8	5	23	3	sw.	C. A. Lee.
Rome	Perry	370	9	76.0		96	18†	49	4†	39	5.31		1.31	0	16	18	11	2	sw.	Adam Anspach.
Salamonia	Jay	950	7	69.6		91	31	40	4	35	5.32		2.25	0	11	11	15	5	sw.	S. A. Armstrong.
Salem	Washington	717	19	72.6	− 2.7	92	18†	44	5	38	5.78	+ 2.79	1.10	0	15	6	18	7	sw.	Emmet S. Allen.
Scottsburg	Scott	570	18	74.2	− 1.9	92	18	46	4	35	8.04	+ 5.25	1.96	0	11	9	16	6	s.	Frank H. Park.
Seymour	Jackson	610	25	74.6	+ 0.2	95	18	44	5	39	5.12	+ 1.69	1.51	0	9	1	29	1	sw.	J. Robt. Blair.
Shelbyville	Shelby	768	8	71.7		91	18	42	5	36	5.31		1.66	0	12	6	24	1	sw.	Edgar G. Hodson.
Shoals	Martin	523	5								5.84		1.50	0	14					Rev. G. Halleck Rowe.
Terre Haute	Vigo	498	22	73.0	− 3.0	92	31	48	4	31	5.64	+ 2.65	1.61	0	13	2	20	9	sw.	U. S. Weather Bureau.
Veedersburg	Fountain	612	13	72.6	− 1.4	93	26†	45	4†	37	4.76	+ 1.57	3.06	0	13	17	11	3	s.	L. A. Culver, jr.
Vevay	Switzerland	525	31	74.4	− 1.1	96	31	50	4†	27	12.00	+ 8.99	2.80	0	12	5	12	14	sw.	Miss Frederica Boerner.
Vincennes	Knox	431	20	75.3	− 1.5	96	18	51	4	35	6.15	+ 3.13	1.30	0	15	15	4	12	se.	Garrett V. List.
Washington	Daviess	484	16	74.4	− 1.5	94	18†	49	4	34	5.13	+ 1.24	0.99	0	15	14	9	8	sw.	Charles C. Feagans.
Whitestown	Boone	529	4	70.4		92	18†	49	5†	32	5.42		2.64	0	10	1	30	0	s.	Clyde O. Laughner.
Winona Lake	Kosciusko	865	5	69.8		94	31	44	3	32	6.39		2.90	0	14	2	26	3	sw.	Rev. Albert A. Young.
Worthington	Greene	526	30	73.1	− 0.5	92	18	47	4	34	5.57	+ 2.26	1.75	0	14	6	20	5	sw.	D. W. Solliday.
Illinois.																				
Albion	Edwards	531	21	75.6	− 1.1	96	18	50	4	35	4.49	+ 1.21	2.26	0	10	15	4	12	sw.	B. F. Michels.
Casey	Clark	645	9								4.44		1.35	0	7	11	13	7	sw.	William Chenoweth.
Charleston	Coles	720	27	72.6	− 1.7	92	28†	45	4	33	4.47	+ 1.52	1.31	0	12	6	17	8	s.	Jacob B. Daisy.
Danville	Vermilion	604	11	72.8	− 0.9	95	31	46	5	37	4.52	+ 1.59	1.64	0	14	17	6	8	sw.	J. J. Lemon.
Equality	Gallatin	421	14	76.9	− 1.3	97	29	51a	5	32a	8.00	+ 4.04	3.36	0	10	17	14	0	s.	Dr. L. W. Gordon.
Fairfield	Wayne	450	19	75.4	− 0.6	96	29	49	4†	37	4.87	+ 1.78	2.48	0	14	8	22	1	sw.	George A. Tromly.
Flora	Clay	495	26	75.1	+ 0.3	96	28	48	4	38	3.53	+ 0.13	0.74	0	13	17	9	5	sw.	W. L. Hanna.
Golconda	Pope	500	34	77.3	− 0.5	100	30	52a	5	35a	3.49	+ 0.33	1.05	0	8	15	7	9	sw.	Dr. D. Lawrence.
Hoopeston	Vermilion	715	10	70.7	− 1.2	91	31	44	4	31	5.50	+ 1.72	2.30	0	11	13	12	6	.....	S. F. Hoskinson.
McLeansboro	Hamilton	462	29	75.2	− 0.5	95	18	50	4	34	4.48	+ 1.03	1.75	0	12	14	10	7	sw.	Prof. W. C. Fairweather.
Metropolis	Massac	346	1																	John Barfield.
Montrose	Effingham	590	2	73.2		92	18†	46	4	36	5.86		1.85	0	13	7	22	2	sw.	J. C. Spitler.
Mount Carmel	Wabash	424	11	74.4	− 1.6	95	31	51a	4	33a	5.60	+ 2.41	0.90	0	15					Mrs. H. M. Phillips.
New Burnside	Johnson	613	17	74.8	− 3.0	97a	29	45	4†	35a	4.04	+ 1.35	1.50	0	11	18	4	9	s.	Thomas H. McCabe.
Newton	Jasper	484	1								4.53		1.16	0	14	18	10	3	.....	J. M. Hicks.
Olney	Richland	486	25																	
Palestine	Crawford	500	30	74.1	− 0.2	95	31	49	4	34	5.30	+ 1.86	1.40	0	14	17	9	5	sw.	Duane Shaw.
Paris	Edgar	600	19	72.0	− 3.0	95	25	44	5	36	5.81	+ 2.91	1.42	0	8	10	20	1	ne.	H. P. Twyman.
Philo	Champaign	700	28	71.8	− 0.9	93	28†	45	4†	38	3.52	+ 0.68	1.05	0	9	16	9	6	sw.	H. A. Burr.
Rantoul	....do	768	21	71.0	− 2.6	95	31	40	4	38	4.37	+ 1.01	2.19	0	14	18	8	5	sw.	William Breiner.
Rileyville	Saline	400	15								5.72	+ 2.93	1.59	0	10	15	5	11	s.	W. H. Thornberry.
Shawneetown	Gallatin	307	2								6.91		3.55	0	14					Mrs. Mary O. Spivey.
Tuscola	Douglas	644	19								3.78	+ 0.54	1.42	0	12	14	10	7	sw.	Joseph O'Neal.
Urbana	Champaign	725	10	71.4	− 1.3	92	31	47	4	34	2.06	− 0.89	0.45	0	10	5	23	3	sw.	Prof. J. G. Mosier.
Kentucky.																				
Alpha	Clinton		18	73.8	− 2.8	87	19†	50	5	27	3.40	− 1.22	1.17	0	8	10	6	15	w.	W. W. Hicks.
Anchorage	Jefferson	700	11	72.1	− 2.7	90	18†	44	4	34	6.41	+ 3.66	1.75	0	14	18	7	6	sw.	C. E. Barrett.
Bardstown	Nelson	637	15	75.0	− 2.6	94	17†	48	5	36	3.50	+ 0.09	1.03	0	15	13	8	10	se.	T. S. Talbott.
Beattyville	Lee	650	8	71.6		98	18	45	5	35	5.20	+ 0.43	1.18	0	13	10	9	12	e.	G. W. Cann.
Beaver Dam	Ohio	441	9	74.8	− 1.6	93	18†	46	5	36	5.59	+ 2.21	2.00	0	12	12	9	10	sw.	W. T. Austin.
Berea	Madison	1,070	11	73.8	− 0.7	93	17	44	5	38	5.96	+ 1.37	2.10	0	15	20	10	1	ne.	C. F. Rumold.
Blandville	Ballard	445	31	75.7	− 1.1	92	20†	53	5	28	2.21	− 0.81	0.52	0	11	11	17	3	sw.	E. W. Horr.
Bowling Green	Warren	500	23	74.2	− 4.7	95	19†	49	4†	35	4.83	+ 1.37	2.00	0	11	17	2	12	s.	Mrs. L. G. Causey.
Burnside	Pulaski	773	21								2.35	− 1.76	0.46	0	15				n.	G. M. Estes.
Calhoun	McLean	397	9	75.8	− 1.9	95	19†	48	4	35	3.61	+ 0.46	0.98	0	11	10	20	1	sw.	W. A. Taylor.
Catlettsburg	Boyd	544	23								5.10	+ 1.45	1.80	0	10					Mrs. Mertie M. Bruns.
Earlington	Hopkins	370	22	76.7	+ 0.1	98	19†	48	4	39	3.07	− 0.25	0.61	0	9	18	3	10	nw.	Brick Southworth.
Edmonton	Metcalfe	600	21	73.2	− 1.8	91	31	50	5	36	5.79	+ 2.40	1.97	0	14	8	17	6	s.	Miss Lee Ray.
Eubank	Pulaski	1,177	18	71.2	− 2.6	90	31	49	4†	33	4.98	+ 1.03	1.30	0	17	11	8	12	s.	Mrs. Katie Payne.
Falmouth	Pendleton	530	23								3.95	+ 0.51	0.90	0	11	11	10	10	sw.	J. V. Oldham.
Farmers	Rowan	668	6	72.6		94	17	45	3†	38	8.22		1.49	0	12	21	0	10	.....	Miss Gertrude Sorrell.
Frankfort	Franklin	560	21	74.6	− 0.1	96	18	44	5	32	8.03	+ 4.61	0.93	0	15	14	6	11	s.	J. H. Roberts.
Franklin	Simpson	691	18	75.6	− 1.5	95	30†	48	5	32	3.73	+ 0.40	1.02	0	10	1	30	0	sw.	J. E. Newman.
Greensburg	Green	581	20	72.0	− 3.6	93	19†	43	5	36	4.77	+ 1.13	0.80	0	13	10	0	21	sw.	L. C. Alcorn.
High Bridge	Jessamine	762	9								4.52	+ 1.17	0.79	0	14					Miss Lulu Wood.
Hopkinsville	Christian	524	16	76.2	− 2.0	97	30	50	4†	38	5.07	+ 2.38	1.80	0	12	18	2	11	se.	W. F. Randle.
Irvington	Breckenridge		14	74.0	− 2.3	91	19	50	4†	33	4.73	+ 1.15	1.15	0	12	18	4	9	sw.	W. J. Piggott.
Leitchfield	Grayson	635	16	73.2	− 2.3	91	19	50	4	32	4.13	+ 1.02	0.70	0	12	18	8	5	sw.	John E. Stone.
Lexington	Fayette	989	24	72.2	− 2.4	88	17	51	5	28	3.23	− 0.34	0.85	0	15	7	13	11	sw.	U. S. Weather Bureau.
Loretto	Marion	681	15	72.9	− 2.8	90	19†	44	5	35	4.41	+ 1.16	1.04	0	11	17	7	7	.....	Loretto Academy.
Louisville	Jefferson	525	40	75.4	− 1.1	93	18	52	4	31	5.06	+ 1.55	1.00	0	12	8	16	7	sw.	U. S. Weather Bureau.
Marion	Crittenden		17																	B. C. Paris.
Maysville	Mason	524	15	73.6	− 2.5	95	18†	46	5	41	4.41	+ 0.76	1.33	0	13	14	6	11	se.	Mrs. Mary D. Marsh.
Middlesboro	Bell	1,128	17	73.4	− 1.0	90	30†	50	5	30	5.41	+ 1.88	0.88	0	19	15	15	1	.....	B. H. Perkins.
Mount Sterling	Montgomery	930	22	72.1	− 1.8	90	31	48	6	35	4.99	+ 1.05	1.35	0	13	10	9	12	s.	James O'Connell.
Owensboro	Daviess	479	15	74.4	− 2.3	91	19	52	4	31	5.96	+ 3.12	1.68	0	15	14	5	12	s.	Henry S. Berry.
Paducah	McCracken	341	23								1.50	− 1.46	0.70	0	7				s.	S. A. Fowler.
Paintsville	Johnson		0																	John C. Ramey.
Pikeville	Pike		4								3.02		0.50	0	13					I. M. Williams.
Richmond	Madison	926	20	73.9	− 1.6	90	17†	49	4	31	4.36	+ 1.16	0.90	0	16	12	8	11	.....	J. W. Crooke.
St. John	Hardin	777	16	73.2	− 1.6	95	19	48	4†	33	5.51	+ 2.57	1.10	0	13	15	0	16	.....	Bethlehem Academy.
Scott	Kenton		14	72.5	− 2.9	91	17†	47	4†	34	5.07	+ 2.16	1.91	0	13	9	19	3	s.	E. B. Wilson.
Shelby City	Boyle	1,087	18	71.7	− 2.6	92	30	44	4†	36	4.62	+ 1.49	1.37	0	14	18	7	6	w.	H. F. Ewing.
Shelbyville	Shelby	759	23	74.4	− 1.1	95	16	49	5	34	5.15	+ 2.12	1.00	0	11	19	2	10	sw.	C. R. Burnett.
Taylorsville	Spencer	489	10	73.1	− 1.4	91	18	45	5	35	5.99	+ 2.61	1.18	0	17	7	15	9	sw.	E. D. Bourne.
Williamsburg	Whitley	939	16	74.6	− 1.7	95	31	54	1†	32	4.16	− 0.47	0.87	0	17	11	0	20	e.	Noble C. Jones.
Williamstown	Grant	943	10	72.0	− 2.0	93	18	48	4	38	6.56	+ 3.34	1.38	0	14	9	6	16	.....	Miss Rose Carter.

TABLE 1.—*Climatological data for August, 1912. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Tennessee.																				
Ashwood	Maury	725	33	76.3	− 1.2	94	30	50	5	33	3.31	− 0.52	0.87	0	12	5	16	10	s.	Mrs. Joseph W. Fleming.
Benton	Polk	880	27	76.7	+ 0.4	95	31	54	5	32	3.67	− 0.42	1.02	0	7	7	21	3	w.	George L. Williams.
Birds Bridge	Greene		6								2.96		1.18	0	9	9	4	18	w.	David B. George.
Bluff City	Sullivan		15								3.31	− 0.78	1.02	0	11	2	11	18	e.	John W. Fisher.
Byrdstown	Pickett	1,026	19	75.1	− 0.1	90	25‡	52	5	28	2.77	− 1.20	0.85	0	13	5	15	11	s.	John Lacy.
Carthage	Smith	500	28	76.8	+ 0.2	95	31	54	5	31	5.38	+ 0.76	1.46	0	13	20	2	9	ne.	Earl C. Pickering.
Cedar Hill	Robertson	625	12	76.6	− 1.9	99	30	49	4	37	3.17	− 0.08	0.85	0	12	18	13	0	s.	J. Frank Ruffin.
Celina	Clay	494	9								4.41		0.93	0	14	12	12	7	s.	Charles M. Anderson.
Charleston	Bradley	709	15								3.49	− 0.65	0.98	0	8	9	7	15	s.	John T. Weeks.
Chattanooga	Hamilton	808	33	76.6	+ 0.1	92	31	58	5	27	8.88	+ 5.13	3.19	0	15	7	21	3	sw.	U. S. Weather Bureau.
Clarksville	Montgomery	500	49	75.8	− 0.1	93	31	49	5	32	3.98	+ 0.80	1.84	0	10	18	12	1	s.	Prof. James A. Lyon.
Clinton	Anderson	800	24								2.28	− 2.08	0.50	0	12	10	6	15	s.	Hugh Evans.
Crossville	Cumberland	1,895	....	71.6	.....	88	30†	48	5	31	4.08	.....	0.75	0	18	15	12	4	.....	J. E. Converse.
Dandridge	Jefferson		8								2.50		0.80	0	8	15	11	5	w.	James E. Swann.
Decatur	Meigs	850	16	76.2	− 0.9	97	19	52	5	33	2.72	− 2.19	0.57	0	12	14	15	2	sw.	J. Worth Lillard.
Dickson	Dickson	800	16	74.8	− 2.3	93	31	51	5	30	4.54	+ 0.97	1.38	0	10	15	16	0	s.	Nathan R. Sugg.
Dover	Stewart	500	17	76.3	− 1.7	95	31	49	5	35	4.83	+ 1.79	1.60	0	7	16	13	2	s.	Asa M. Tippit.
Dunlap	Sequatchie	726	3	75.6	.....	95	30†	50	5	32	7.97	.....	1.72	0	14	13	13	5	.....	S. Bradford Boyd.
Elizabethton	Carter	1,575	22								3.23	− 1.06	0.82	0	11	9	6	16	e.	Charles Boyd.
Erasmus	Cumberland	1,850	15	71.4	− 0.6	90	31	50	2	34	6.36	+ 1.58	1.06	0	17	11	15	5	s.	Mrs. Sarah E. Ashley.
Florence	Rutherford	560	30	75.7	− 0.9	91	19†	53	5	30	4.21	+ 0.64	1.38	0	11	18	9	4	s.	Erastus P. Bell.
Franklin	Williamson	648	22	75.4	− 1.2	91	20	53	5	28	3.99	+ 0.74	1.30	0	10	10	15	6	.....	Young M. Rizer.
Halls Hill	Rutherford		10								3.46		0.70	0	9	23	1	7	s.	Edward F. Wright.
Harriman	Roane	841	17																	
Hohenwald	Lewis	983	26	76.0	− 0.3	95	20†	50	5	34	4.63	+ 0.83	1.13	0	13	14	16	1	s.	Mrs. Mary Lutzelman.
Iron City	Lawrence	600	15	76.4	− 1.3	95	18	51	5	35	6.59	+ 3.03	1.56	0	8	5	26	0	sw.	Capt. H. Paul Seavy.
Jefferson City	Jefferson		2								4.23		0.82	0	15	....	....	....	.....	Calvin C. Maddox.
Johnson City	Washington	1,620	1	73.2	− 0.3	93	17	47	5	32	4.21	− 0.21	1.60	0	13	23	8	0	nw.	Ward Crosby.
Johnsonville	Humphreys	364	16	77.6	− 0.9	98	29†	49	5	35	2.39	− 0.93	0.72	0	11	12	14	5	s.	Miss Sallie B. Mathews.
Kingston	Roane		21								3.17	− 0.75	1.40	0	11	16	1	14	s.	Henry Crumbliss.
Knoxville	Knox	977	41	75.4	+ 0.7	92	31	58	5	28	2.66	− 1.34	0.74	0	10	2	15	14	sw.	U. S. Weather Bureau.
Lebanon	Wilson	522	3	76.1	.....	94	19	51	5	31	4.11	.....	0.94	0	12	6	11	14	s.	H. Logan Fields.
Lewisburg	Marshall	727	17	77.2	− 0.6	95	19†	51	5	31	5.50	+ 1.14	1.89	0	11	15	13	3	s.	Dr. Robert D. Crutcher.
Loudon	Loudon	816	9								4.30	+ 0.68	1.20	0	11	14	5	12	w.	Robert W. Clark.
Lynnville	Giles	770	24	76.3	+ 1.1	91	18†	54	5	26	6.34	+ 2.43	1.84	0	10	15	15	1	s.	Col. James H. Burrow.
McGhee	Monroe		8								5.21		2.25	0	8	20	2	9	s.	Miss Alice L. Headrick.
McMinnville	Warren	1,011	28	77.6	+ 2.0	96	18‡	50	5	36	3.53	− 0.37	1.30	0	8	21	5	5	s.	
Maryville	Blount	1,050	16	75.5	− 0.9	95	30	54	9	30	4.01	− 0.11	1.01	0	10	15	11	5	e.	Mrs. Sam T. Broyles.
Mountain City	Johnson	2,486	15	67.6	− 1.3	84	31	43	5	31	4.01	− 1.45	0.96	0	15	15	14	2	.....	Edward E. Barry.
Nashville	Davidson	654	41	76.7	− 1.1	92	19	56	4	27	3.06	− 0.41	0.59	0	12	13	6	11	sw.	U. S. Weather Bureau.
Newport	Cocke	1,280	22	74.4	− 0.9	96	18	55	5	28	2.64	− 1.77	0.73	0	9	16	15	10	s.	Dr. Charles T. Burnett.
New River	Scott	1,215	5								3.67		0.64	0	10	19	3	9	sw.	Burl W. Buttram.
Palmetto	Bedford	770	19	76.4	− 1.3	92	20†	56	5	27	4.78	+ 1.29	1.90	0	8	20	8	3	sw.	Mrs. Ross Woods.
Perryville	Decatur	387	15	77.0	.....	94	20†	50	5	34	3.40	+ 0.47	0.83	0	8	16	11	4	.....	Oliver C. Kirksey.
Pinewood	Hickman		5	75.2	.....	95	19†	46	5	38	3.94	.....	1.50	0	9	....	....	....	.....	Miss Carrie Cash.
Rogersville	Hawkins	1,150	27	73.6	− 0.3	91	31	54	5	31	3.35	− 0.84	0.66	0	16	12	13	6	e.	Fred Beal.
Rugby	Morgan	1,410	24	72.4	− 0.6	92	31	49	5	34	7.83	+ 3.67	1.35	0	15	2	7	22	nw.	Samuel C. Wilson.
Savannah	Hardin	442	28	78.2	+ 0.1	96	20	53	5	33	4.21	+ 0.69	1.50	0	10	20	6	5	sw.	W. H. Carrington.
Sevierville	Sevier		6	74.3	.....	92	31	53	5	26	3.75	.....	1.11	0	12	1	8	22	sw.	Herbert O. Eckel.
Sewanee	Franklin	2,000	16																	University of the South.
Sparta	White	920	6	75.2	.....	92	31	50	4†	30	3.06	.....	0.70	0	13	8	6	17	w.	Ernest H. Hull.
Springville	Henry	377	9	76.0	− 1.2	95	20	47	5	35	3.48	+ 0.75	0.92	0	12	23	8	0	w.	Hudnall A. Boden.
Tazewell	Claiborne	1,350	15	72.3	.....	92	31	47	5	34	5.18	+ 0.33	1.67	0	16	10	3	18	sw.	J. Caloway Carr.
Tullahoma	Coffee	1,075	24	75.5	0.0	92	19†	57	6	28	5.21	+ 1.43	2.65	0	12	12	16	3	s.	Reuben T. Moore.
Walling	White	909	9								2.05		1.01	0	9	13	11	7	sw.	John K. Roberts.
Waynesboro	Wayne	753	26	75.8	− 0.1	93	18†	49	5	33	5.24	+ 1.41	1.30	0	9	5	23	3	s.	Harry C. Boyd.
Wildersville	Henderson	400	15	77.8	+ 0.2[f]	96	30	52	5	36	2.11	− 1.96	0.45	0	10	18	10	3	s.	William R. Wilson.
Worsham	Sumner	550	11								1.63	− 0.75	0.47	0	11	19	3	9	w.	James G. Elizer.
Yukon	Lincoln	850	15	75.0	− 2.7	92	20	53	5	27	5.15	+ 1.38	2.15	0	10	11	18	2	w.	William P. Watson.
Alabama.																				
Bridgeport	Jackson	660	12								6.86	+ 2.68	2.00	0	13	....	....	....	.....	R. L. Moore.
Decatur	Morgan	573	30	77.9	− 0.8	95	21	56	5	29	5.30	+ 2.00	0.99	0	9	....	....	....	.....	Ernest A. Carriger.
Florence	Lauderdale	563	28	77.8	− 1.0	96	30	53	3	32	7.59	+ 3.98	2.03	0	9	18	0	13	w.	Robt. E. Coburn.
Guntersville	Marshall	580	2	79.1	.....	96	19	57	2	33[b]	7.10	.....	2.65	0	11	....	....	....	.....	L. S. Long.
Madison	Madison	573	18																	J. B. Stevenson.
Riverton	Colbert	360	15	76.4	− 2.0	96	20	49	5	36	6.80	+ 3.41	2.12	0	11	20	2	9	e.	Ernie J. Moore.
Scottsboro	Jackson	652	29	75.8	− 1.8	91	20†	56	5†	30	6.41	+ 2.78	1.98	0	11	10	7	14	sw.	H. A. Caldwell.
Tuscumbia	Colbert	488	30	78.0	− 0.9	94	19†	56	5	29	8.36	+ 4.93	2.35	0	10	....	....	....	.....	Samuel Moore.
Georgia.																				
Diamond	Gilmer	2,020	20	72.0[a]	− 1.1	88	28	52	5	28	5.56	− 1.22	1.34	0	9	15	10	6	.....	R. A. Kimzey.
North Carolina.																				
Andrews	Cherokee	1,800	2	72.6	.....	92	31	50	2	33	4.09	.....	0.82	0	15	8	22	1	sw.	J. D. Link.
Asheville	Buncombe	2,255	33	70.0	− 0.5	87	31	51	5	28	1.88	− 2.91	0.62	0	13	6	17	8	nw.	U. S. Weather Bureau.
Banners Elk	Avery	3,750	4	63.4	.....	82	31	38	4	31	1.58	.....	0.30	0	10	7	19	5	w.	T. L. Lowe.
Blantyre	Transylvania	1,900	....	70.8	.....	90	20	48	2	33	1.80	.....	0.85	0	14	10	17	4	w.	R. W. Collett.
Blowing Rock	Watauga	4,090	3	61.0	.....	76	31	41	5	25	2.71	.....	1.65	0	4	21	8	2	w.	Herman S. Deal.
Brevard	Transylvania	2,230	11																	W. E. Breese.
Bryson City	Swain	2,000	24								5.88	+ 0.61	1.87	0	10	....	....	....	.....	D. K. Collins.
Cullowhee	Jackson	2,100	2	71.2	.....	89	31	50	2	30	4.25	.....	1.95	0	15	14	11	6	nw.	Frank H. Brown.
Eagle Nest	Haywood	5,050	....	64.2	.....	79	27	47	5	23	3.69	.....	1.25	0	12	21	6	4	w.	S. C. Satterthwait.
Hendersonville	Henderson	2,167	16	70.4	− 2.1	90	31	49	5	31	3.17	− 4.74	1.20	0	6	21	8	2	s.	Dr. L. B. Morse.
Highlands	Macon	3,850	22	65.4[a]	− 0.4	80	14†	47	5†	28	4.16	− 3.47	2.00	0	8	....	....	....	nw.	T. G. Harbison.
Hot Springs	Madison	1,326	14	72.9	− 0.2	92	31	50	5	30	1.61	.....	0.76	0	6	17	12	2	w.	P. A. Garner.
Jefferson	Ashe	2,900	5	68.0	.....	84	14	42	5	30	1.27	.....	0.52	0	10	2	4	25	w.	Prof. E. J. Johnson.
Marshall	Madison	1,646	10	72.6	− 0.4	95	31	51	5	34	1.85	− 4.17	0.52	0	8	11	9	11	w.	M. L. Church.
Murphy	Cherokee	1,614	36								4.64	− 0.70	0.99	0	8	....	....	....	.....	Victoria Mingus.
Rock House	Macon	3,100	20																	Barry C. Hawkins.
Transon	Ashe	2,600	....	66.0[b]	.....	83	18†	41	5	33	.....	.....	.....	0	....	....	....	....	.....	S. M. Transou.
Waynesville	Haywood	2,792	18	69.5	− 0.7	89	28†	46	2	35	4.37	− 0.05	1.52	0	16	14	6	11	sw.	Judge J. C. L. Gudger.

TABLE 1.—*Climatological data for* ***August, 1912.*** *District No. 8*—**Continued.**

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Virginia.																				
Blacksburg	Montgomery	2.170	21	68.6	− 1.3	88	31	45	2†	36	1.75	− 2.19	0.41	0	13	10	9	12	nw.	Agricultural Exp. Station.
Burkes Garden	Tazewell	3.250	17	63.6	− 2.7	80	14†	37	5	34	3.92	− 0.41	0.85	0	10	1	9	21	sw.	C. H. Greever.
Elk Knob	Lee	3.243	9	71.4	.....	87	31	52	5	24	5.03	.....	1.12	0	20	8	18	5	s.	Henry Nicoll.
Ivanhoe **	Wythe	2.028	8	68.1	.....	82	31	48	5	24	1.72	.....	0.66	0	8	12	15	4	w.	Miss Alice G. Jewett.
Max Meadows	do	2.028	16	67.9	− 3.1	88	31	46	2†	34	1.18	− 4.02	0.50	0	7	11	15	5	sw.	James M. Graham.
Mendota	Washington	1.350	3	.....	.....	.....	.....	.....	.....	.....	3.69	.....	0.80	0	16	.....	.....	.....	.....	Frank M. Barker.
Mountain Lake	Giles	4.348	2	62.8	.....	80	31	42	28	30	2.97	.....	0.83	0	8	23	5	3	nw.	H. E. Dorland.
Radford	Montgomery	1.773	3	.....	.....	.....	.....	.....	.....	.....	2.66	.....	0.50	0	10	.....	.....	.....	.....	Arthur Roberts.
Speers Ferry	Scott	1.221	16	.....	.....	.....	.....	.....	.....	.....	3.65	− 1.28	0.80	0	11	.....	.....	.....	.....	Mrs. L. E. Venable.
Wytheville	Wythe	2,293	19	70.5	− 2.2	84	31	45	5	33	1.98	− 2.56	0.53	0	16	6	20	5	w.	U. S. Weather Bureau.

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow

TABLE 2.—*Daily precipitation for August, 1912. District No. 3, Ohio Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
New York.																																	
Allegany	Allegheny	....	.43	.04	.15	....	....	....	.03	.13	....	.03	....	.79	....	....	....	....	.51	.28	.20	.68	....	.09	.61	....	.93	....	....	1.25	....	....	6.15
Bolivar	do	.70	....	.16	....	....	....	....	....	.06	.33	.19	.04	.16	....	....	....	....	.55	.33	T.	....	.21	.24	.05	....	.25	.53	.20	.04	....	.73	4.77
Olean ‖	do	....	....	.60	....	....	....	....	....	.22	....	.07	....	.40	....	....	....	....	.47	.23	.07	....	.58	.06	....	.50	.58	.05	.28	....	....	....	4.11
Pennsylvania.																																	
Aleppo	Ohio	....	.37	....	....	....	....	....	.09	.10	.15	.40	.23	....	.11	....	....	T.	....	.11	.09	....	....	.17	....	....	.30	....	.10	....	....	....	2.31
Baldwin	Allegheny	....	T.	.15	T.	....	....	....	.10	.25	.10	.30	.16	.06	....	....	....	....	....	.55	....	.10	.37	.34	....	....	2.34	.16	T.	.34	....	.43	5.75
Beaver Dam ‖	Ohio	....	....	.02	....	....	....	....	.38	.19	.04	T.	.08	.04	....	T.	....	....	1.05	.95	....	....	.16	....	....	.07	.35	....	.88	....	.01	4.22
Beaver Falls ‖	do	....	....	.92	....	....	....	....	.62	.19	.08	.02	.07	.03	T.	T.	....	....	.24	.54	.01	.09	.19	....	....	.50	.23	....	.97	....	.31	5.01
Brookville	Allegheny	.55	.40	....	....	....	.42	....	....	.30	....	.10	....	.05	.05	.15	....	....	.65	.60	.05	.24	.30	.40	....	.20	....	.21	.30	....	.05	....	7.72
California	Monongahela	....	.50	....	....	....	....	T.	T.	.12	T.	.90	....	.30	.10	....	....	....	1.10	.10	....	....	....	.20	....	....	.10	....	.40	.10	.20	T.	4.12
Clarion ‖	Allegheny	....	....	.05	....	....	....	....	....	....	.20	....	.18	....	....	.25	....	....	.50	....	.25	....	....	.35	....	....	1.85	.77	....	.45	....	....	4.85
Claysville	Ohio	.48	.34	....	....	....	....	....	.04	.14	.07	.15	.16	.02	.60	.03	....	....	.28	.50	.32	.02	.14	....	....	.32	....	.19	.85	....	T.	4.65
Confluence ‖	Youghiogheny.	....	....	T.	....	....	....	....	....	....	.10	.35	.38	.10	T.	.62	....	....	.53	1.52	....	....	.27	.12	....	.10	T.	....	.56	.06	.28	4.99
Coraopolis ‖	Ohio	T.	.02	.10	....	....	....	....	.05	.09	.05	T.	.04	.03	.08	T.	....	....	T.	1.05	.71	....	....	.03	....	....	.08	.15	....	.44	....	.11	3.03
Davis Island Dam ‖	do	.02	T.	.42	....	....	....	....	.03	.02	.07	.02	.32	.02	.10	.01	....	....	T.	.74	.43	....	....	.02	....	....	.04	.11	....	.34	....	.14	2.85
Derry Station	Allegheny	....	.90	.03	....	....	....	T.	T.	.11	.21	.33	.09	.03	.54	.05	....	T.	....	1.70	.02	....	.76	.07	....	....	.12	....	.04	.42	....	.58	6.00
Ellwood City ‖	Ohio	....	.07	.65	....	T.	....	....	.47	.14	.19	.09	.07	....	....	....	....	....	....	.09	.17	.11	.04	.24	....	....	.12	.87	....	.59	....	.51	4.42
Franklin ‖	Allegheny	....	....	1.05	.06	....	....	....	.24	.05	.40	.05	.52	.02	.18	....	....	....	....	.65	.05	.06	.02	.36	.42	....	1.70	1.11	....	.43	....	.06	7.43
Freeport ‖	do	.07	....	.56	....	....	....	.03	T.	.08	.06	.01	.52	.31	.03	.68	....	....	....	.05	.82	....	....	.06	....	....	.07	.71	....	.53	....	.71	5.30
Greensboro ‖	Monongahela	.04	....	.26	....	....	....	....	....	....	.18	.04	.24	.04	....	.64	....	....	.80	.60	....	....	.80	....	....	.20	.02	....	.56	.06	....	4.48
Greensburg	Youghiogheny.	.09	.08	....	....	....	....	....	T.	.13	.04	.10	.22	.06	.44	.06	....	T.	....	1.73	.09	....	.67	.07	....	....	.78	....	.03	.49	....	.54	5.62
Greenville	Ohio	....	.10	T.	T.	....	....	....	.49	.05	.34	.65	.02	T.	....	....	....	....	....	.12	....	.48	.02	.59	....	....	2.40	.29	.17	.40	....	.76	6.88
Grove City	do	....	....	.15	....	....	....	....	.73	.15	.18	.53	....	....	....	....	....	....	....	1.70	....	.60	....	.33	....	....	2.22	.03	.08	.34	....	.40	7.44
Herrs Island Dam ‖	Allegheny	.10	....	.36	....	....	....	....	.01	.03	.10	.07	.36	.03	.04	T.	....	....	T.	.62	.40	T.	T.	.02	T.	....	.02	.13	....	.35	....	.28	2.92
Indiana	do	.35	.25	.27	....	....	....	....	....	.39	.34	.66	.14	.17	.15	.17	....	....	.05	.33	.65	.05	....	.16	....	....	.27	.53	.06	.18	....	.50	5.67
Irwin	Monongahela	.19	....	....	....	....	....	....	....	.19	.19	.22	.03	....	.16	....	....	....	.01	1.49	.08	....	.39	.12	....	....	.05	....	.03	.48	....	.46	4.09
Johnstown	Allegheny	.05	.24	.31	....	....	....	....	....	.56	.79	.03	.20	....	....	.10	....	....	.04	1.10	....	.01	.44	.29	....	....	.48	....	.03	.35	.01	.55	5.28
Lock No. 4 ‖	Monongahela	.30	....	.27	....	....	....	....	.03	T.	.15	....	.54	.03	.15	T.	....	....	....	.38	1.25	.58	....	.20	....	....	.05	T.	....	.52	....	....	4.45
Lycippus	Allegheny	....	.18	.02	....	....	....	....	....	.07	.41	.55	T.	.29	.22	....	....	T.	....	1.83	.20	....	.02	.20	....	....	.34	....	.02	.52	....	.54	5.41
Parkers Landing ‖	do	....	....	.32	.04	....	....	....	.04	.02	.28	.06	.18	.12	.20	....	....	....	.34	.68	.90	....	....	.18	....	....	2.30	.86	....	.28	....	.20	7.00
Pittsburgh	Ohio	....	.22	....	....	....	....	....	.02	.07	.04	.43	....	.07	.01	T.	....	T.	.64	.10	T.	T.	T.	.03	....	....	.13	....	.42	....	....	.21	2.39
Saegerstown	Allegheny	....	.48	.02	....	....	....	....	.28	.05	.34	.30	....	....	....	....	....	....	....	.48	....	.40	.12	.49	....	....	1.36	.28	.20	.06	....	....	4.86
Saltsburg ‖	do	.18	.04	.08	....	....	....	.06	....	.22	.08	.86	.10	.10	.14	....	....	....	.20	.84	.06	....	.13	....	T.	.01	.27	....	.34	....	.74	4.45
Sharon ‖	Ohio	....	....	.05	T.	T.	T.	....	.17	.02	.54	.15	1.20	....	....	....	....	....	.42	1.43	.26	T.	.35	T.	....	1.86	.09	....	.34	....	.51	7.39
Skidmore	do	....	.35	....	....	....	....	....	....	.65	.10	.15	....	....	....	....	....	....	.25	....	.75	....	....	....	....	....	3.25	....	.20	.20	....	1.00	6.90
Somerset	Youghiogheny.	.53	....	....	....	....	....	....	....	.71	.35	.16	....	.71	.15	.10	....	....	1.10	....	....	.50	.25	.21	T.	.16	....	.14	1.05	....	.65	6.67
Uniontown	Monongahela	.07	.15	....	....	....	....	....	.02	.07	.13	1.16	.17	.03	.86	.06	....	....	1.10	1.34	.28	.03	.45	.34	....	....	.70	....	.06	.70	....	T.	7.76
Warren	Allegheny	....	.60	....	....	....	....	....	.20	....	.32	.10	....	....	....	....	....	.30	.90	.40	....	.78	.22	.18	.10	....	.30	2.00	.10	.60	....	.38	7.48
West Newton ‖	do	.02	....	.16	....	....	....	....	.04	.02	.32	.07	.40	.04	.26	....	....	....	....	.40	1.32	.01	....	.28	T.	....	.02	T.	....	.80	....	.27	4.51
Maryland.																																	
Deer Park	Youghiogheny.	....	.11	....	....	....	.05	....	.04	.05	....	....	.41	....	.54	....	....	....	.37	.23	....	....	....	.97	....	....	....	.07	....	.55	....	....	3.39
Grantsville	do	....	.16	....	....	....	....	....	....	.27	.13	.22	....	.27	.30	....	....	....	....	.85	.42	....	....	.06	....	....	.07	.03	....	.63	....	.65	4.06
Oakland	do	.08	.07	.10	....	.02	.05	.04	.04	.11	.02	.06	.02	....	.45	....	T.	.24	.46	.09	....	T.	.93	....	....	T.	.17	.01	.82	....	.19	3.97
West Virginia.																																	
Bancroft ‖	G. Kanawha	....	....	....	....	....	....	....	.07	....	.30	....	1.37	....	....	....	....	....	....	.33	.27	.03	.82	.05	....	....	1.04	....	....	.55	....	....	4.83
Beckley	do	....	....	....	....	....	....	....	....	....	.30	....	.32	....	....	....	....	....	....	....	.60	....	....	....	....	....	1.48	....	....	.65	....	....	3.35
Bens Run	Ohio	....	.58	....	....	....	....	....	.41	.72	.05	.13	....	....	....	....	....	....	....	1.07	....	....	....	.03	....	....	.60	.04	....	....	....	....	3.63
Bluefield	G. Kanawha	.10	....	.15	....	.02	....	....	.02	.10	.15	.11	.12	.08	....	.07	....	....	.10	.11	.51	.56	.45	.15	....	....	.75	....	....	.27	.23	.65	4.70
Brandonville ‖	Monong'h'a.	....	....	....	....	T.	....	....	T.	....	....	.65	.75	.13	1.03	....	T.	....	....	.65	.30	....	....	.23	....	....	.23	....	....	.80	....	.05	4.59
Buckhannon	do	....	....	....	....	....	T.	....	.20	.25	.37	T.	.01	....	....	....	....	....	.04	.47	.25	T.	.30	.35	....	....	.27	....	....	.10	....	T.	2.61
Cairo	L. Kanawha	....	.05	....	....	....	....	....	.20	....	.20	.05	....	.26	.03	....	....	....	....	....	.40	.05	....	.24	....	1.15	.45	....	....	.22	....	....	3.30
Central Station	Mid. Is. Cr'k	....	.20	....	....	....	T.	....	.15	.10	.20	.10	.18	.01	....	.02	....	....	.08	.29	....	T.	.25	....	....	.96	T.	T.	.06	....	....	2.60
Charleston ‖	G. Kanawha	....	....	....	....	....	....	....	.25	.02	.58	.05	1.24	....	....	....	....	....	.64	1.00	.20	.40	T.	....	....	.35	.12	....	.64	....	....	5.49
Cheat Bridge ‖	Monong'h'a.	.65	....	.38	....	....	....	....	.03	....	....	....	.35	....	....	.10	....	....	1.04	.04	....	....	.30	.07	....	....	.15	....	.30	.07	.06	3.54
Cortland ‖	do	.20	....	.26	....	....	....	.04	....	....	.13	....	.28	.03	....	1.38	....	.09	....	.10	.91	....	.04	.09	.17	....	....	.66	....	1.06	.32	....	5.76
Creston ‖	L. Kanawha	....	....	.04	....	....	....	....	.30	.10	.21	....	.35	....	....	....	....	....	....	.41	.24	.03	....	.02	....	....	.30	.30	....	.26	....	....	2.56
Cuba	Sand Creek	....	.17	....	....	....	....	....	.26	T.	T.	.32	....	T.	....	....	....	....	.68	T.	T.	....	.16	T.	....	....	.66	....	....	.32	....	T.	2.57
Davis ‖	Monong'h'a.	.43	....	.46	....	....	....	.07	....	T.	.12	....	.32	T.	.06	.96	....	....	.03	.05	.92	T.	.03	.24	.04	....	....	.50	.03	1.46	.32	T.	6.04
Doane	Big Sandy	....	.02	....	....	....	.16	....	.52	.14	....	....	1.30	....	....	....	....	....	.19	....	....	.56	....	....	....	.04	....	....	....	2.20	....	....	5.13
Elizabeth ‖	L. Kanawha	....	....	.05	....	....	....	....	.37	.02	.09	.10	.32	....	....	....	....	....	....	1.05	1.12	....	....	.11	....	....	.21	.70	....	.13	....	....	4.27
Elkhorn	Big Sandy	....	....	....	....	T.	T.	....	T.	.50	....	.90	T.	.50	....	.25	....	....	.40	....	.60	.35	....	....	....	....	.50	T.	....	T.	.10	....	4.10
Elkins	Monong'h'a.	....	.16	....	....	....	.14	T.	.01	.06	.09	.16	....	T.	T.	....	....	....	....	.78	.11	.80	.04	.08	....	....	.54	.03	....	.01	....	.29	3.30
Fairmont ‖	do	.09	....	.09	....	....	....	....	T.	.08	.13	.08	.18	....	....	....	....	....	....	.03	.57	T.	....	.13	....	....	.37	T.	....	.21	.06	....	2.02
Glenville ‖	L. Kanawha	.43	....	....	....	....	....	....	.07	.58	....	....	1.02	....	....	....	....	....	....	....	1.21	....	....	.30	....	....	.03	.63	....	.35	....	....	4.62
Grafton	Monong'h'a.	.20	.08	.02	.08	....	.08	.02	.17	.11	.18	.02	.13	.02	....	.48	....	....	.08	.41	.42	....	....	.15	....	....	.07	.02	.03	.36	....	....	3.13
Green Sulphur Sp'gs	G. Kanawha	....	....	.03	....	....	....	....	....	.17	.03	....	.38	.02	....	....	....	.06	.60	.12	.75	.10	.02	....	....	....	.07	....	....	.46	....	....	2.81
Hinton ‖	do	.06	....	....	....	....	....	....	....	.18	.06	.02	.06	.16	....	....	....	....	1.74	.20	.30	.10	.44	.06	....	....	....	.16	....	.46	....	....	4.00
Holcomb	do	.19	....	....	....	....	....	T.	....	T.	T.	.75	....	....	....	....	....	....	....	.56	....	.55	....	....	....	1.12	....	....	1.22	T.	....	4.39
Huntington ‖	Ohio	....	....	....	....	....	....	....	.08	.08	.42	....	2.28	.08	.08	....	....	....	....	.26	.46	.06	.12	.06	....	....	....	1.04	....	1.18	....	....	6.20
Lewisburg	G. Kanawha	....	....	.05	....	....	....	....	T.	.06	....	....	....	....	....	....	....	.06	.21	.22	.15	.03	.19	....	....	....	T.	....	....	T.	....	.24	1.21
Logan	Guyandotte	.02	....	.05	....	....	....	....	.25	....	.10	.20	.60	.04	....	....	....	.10	.64	.10	.22	.06	.40	....	....	.24	....	....	.97	.05	....	4.04
Lost Creek	Monong'h'a.	....	.51	....	....	....	.08	....	.10	T.	.12	.16	T.	....	....	....	....	....	.70	.12	....	T.	T.	....	....	.68	T.	....	.13	....	.12	2.72
Madison ‖	G. Kanawha	.02	T.	.04	....	....	....	....	T.	.73	.03	....	.41	....	....	.03	....	.04	.06	1.52	.31	.04	.05	....	.33	....	....	.95	....	....	....	.56	4.56
Mannington	Monong'h'a.	T.	.28	....	....	....	....	....	.01	.25	.09	.37	.01	....	....	....	....	....	.03	.19	.09	....	....	.01	....	....	.33	.01	.06	.30	....	T.	2.03
Marlinton	G. Kanawha	....	....	....	....	....	....	....	....	.24	.07	....	....	....	....	....	....	....	.36	....	....	....	....	.19	....	....	.19	....	....	.73	....	.29	1.88
Morgantown	Monong'h'a.	....	....	....	....	....	....	....	....	....	.30	.39	....	....	.78	....	....	....	....	.15	.08	....	....	.05	....	....	.51	....	....	....	....	.18	2.44
Moundsville	Ohio	....	.26	....	....	....	....	....	.24	.33	.01	.28	T.	....	....	T.	....	....	....	.08	.06	....	....	.30	....	....	.35	....	.11	....	....	T.	2.02
New Cumberland	do	T.	T.	....	....	....	....	....	.90	.30	.10	.30	....	T.	T.	....	....	T.	.28	.30	T.	T.	.10	T.	....	.20	....	.20	.40	....	T.	3.08
New Martinsville	do	....	.75	....	....	....	....	....	.22	1.18	.10	.11	.02	....	....	....	....	....	....	.83	....	....	....	.25	....	....	.50	....	....	....	....	....	3.96
Nuttallburg	G. Kanawha	....	....	.02	....	....	....	....	....	.15	....	....	....	T.	....	....	....	....	....	1.20	.33	.94	.16	T.	....	....	.19	....	....	.87	....	.10	3.96
Osceola ‖	Monong'h'a.	.60	....	.08	....	....	.06	....	....	.10	....	.20	.01	....	.90	....	....	....	.19	.37	.19	.78	.05	.33	.44	....	....	.50	....	.09	.02	.24	5.15
Parkersburg	Ohio	....	.03	....	....	....	T.	.19	.04	.28	.31	.43	....	.01	....	....	....	....	.03	.94	T.	....	T.	T.	....	.39	....	.04	.36	....	T.	3.05
Parsons	Monong'h'a.	.02	....	....	....	....	.10	.07	.03	.30	.25	....	.27	.62	....	....	....	....	.35	.40	.15	....	.02	.35	....	....	.20	.25	.85	.02	....	.20	4.45
Philippi	do	.26	.21	....	....	....	T.	....	.12	.13	.22	.06	....	.02	....	....	....	....	.25	.39	.54	T.	....	.49	....	....	.23	.02	.02	.29	.03	.13	3.41
Pickens	do	....	.36	....	....	T.	....	....	T.	....	.20	.30	.05	....	T.	....	....	....	.75	1.01	(*)	.14	.42	.22	....	....	.86	1.16	....	.18	....	T.	5.65
Pineville	Guyandotte	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Point Pleasant ‖	Ohio	....	....	....	....	....	....	....	.32	.04	.18	....	.50	....	....	....	....	....	....	....	.08	....	....	.08	....	....	.98	.01	....	.72	....	....	2.91
Powellton	G. Kanawha	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Princeton	do	....	....	....	....	....	....	....	....	.10	.25	.15	.10	.25	....	....	....	.25	1.25	.25	.40	.25	.30	....	....	....	.50	.30	....	....	.50	....	4.85
Robertsburg ‖	do	....	....	....	....	....	....	....	.30	....	.18	....	3.37	.10	....	....	....	....	....	.55	.28	.20	....	.20	....	....	.38	....	....	.55	....	....	6.11
Rowlesburg ‖	Monong'h'a.	.10	....	.18	....	....	....	.04	....	....	.60	.10	.10	....	....	.50	....	....	.40	.10	....	....	.80	....	....	.04	.10	....	.60	.10	.02	3.78

TABLE 2.—*Daily precipitation for August, 1912. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
West Virginia—Con.																															
Ryan	G. Kanawha							T.	.28	.30	.11	.39	.80	T.	T.				.08	.52		.05	.42	.05			.20			1.50			4.70
St. Marys ||	Ohio		.18						.88		.10		.05							.82							.46		.22				2.71
Smithfield ||	Fishing Cr'k	.26	.09	.15					.15	.26	.30								.12	.27								.49	.23				2.32
Spencer ||	L. Kanawha	T.							.30	.18	.25	.03								.59	.20			.57			.26			.25			2.63
Sutton	G. Kanawha																																
Terra Alta	Monong'h'a.	.20												.70	.38				.25	.10				.45			.01	.16		.51			2.76
Union	G. Kanawha	.12	T.		.42					.30			.22	T.	.20					1.04	.21	.13	.12	.50						.12			3.38
Valley Fork	do						.85				1.75		1.35				1.80				.25					1.50				4.20			11.70
Webster Springs	do		T.				T.		T.		.27		.30		.22		.38	.60	1.20	.70	.15	.21					.27	.15		.30			4.75
Wellsburg	Ohio		.04						.34	.18	(*)	(*)	(*)	.18	.17			T.		1.30	.11	1.83					.26	.25	.13	1.51		.29	6.59
Weston	Monong'h'a.																																
Wheeling ||	Ohio			.27					.47	.19	.22		.30	T.		.20				.12	.31	.01	T.	.10			.22			.15			2.56
Williamson ||	Big Sandy	.24			.02				.18	.02	.20		.60	.52	.08	.02			.02	.48	.36	.18		.26				.08		.58	T.		3.84
Ohio.																																	
Amesville	Ohio		.28						.21	.41	.22	.19	.04	.03	.08					1.17	.02		.10	T.			2.00			.46			5.21
Bangorville	Muskingum							.02	.12	.58	T.	.46			.02			.07	T.	T.		T.		.52		.06		T.	.21	.38	T.	.15	2.59
Bellefontaine ||	Great Miami								.32		.20	.30	.04	.06	.09				.41		.02			.45						.16			2.05
Bladensburg	Muskingum		T.					T.	.45	.81	.13	.50								.42	T.			.04								.11	2.46
Cadiz	Ohio								.25	.05	1.00	.33		.08	.18			.02		2.45		T.	.06	.10			1.05	T.	.37				5.94
Cambridge	Muskingum		.17						.20	1.52		.11		T.						.99	.03			.01			.38		.20	.02		.27	3.90
Camp Dennison	Ohio							.08	.05	.93	.02	.26	.23	.42	.02		.01			.38	1.05			.21			.03			.67		.50	4.86
Canal Dover	Muskingum		.05					.33	.19	1.26	.44							.06		T.	T.			.40		1.55			.24	.22		.43	5.17
Canton ||	do		T.						.33	.09	.87	.11	.63	.19	T.				.08	.28	.10		.03	.39			.07	.17		.76			4.10
Cardington	Scioto								.61	.40								.62				.26							.68	.83		.03	3.43
Chillicothe ||	do							.06		.75		.95																		.02			1.78
Cincinnati	Ohio							.07	.09	1.93	.17	.18	.05	.41	.01					.12	1.39	.01	.16				.13		.28				5.00
Circleville ||	Scioto		.17						.09	.54	.74	.17	.02	T.	.40	1.30					.07		T.	.05			.09			.09			3.73
Clarington	Ohio		.42						.20	.62	.20	.26		T.	T.					.42			.05	.20	T.		.40		.15			.05	2.97
Columbus	Scioto		.07					.05	.06	.38	.03	.29		.02	T.				T.	.27	.01	.18	.03	.08		T.	.06		.28			.44	2.25
Coshocton ||	Muskingum		.20						.36	.23	1.07	.26	.43			.23				.58				.10			.12		.25		.17		4.00
Dayton (1)	Great Miami		.35				T.	.31	T.	.50	.20	.01	.28	.33	.96		T.	T.		.14	.33	.53	.10			T.	.13		2.47				6.64
Dayton (2)	do		.31					.44	.04	.58	.03	.30	.05	.38	.74		.02	.02		.11	.32		.63	.10			.20			2.07			6.34
Delaware ||	Scioto		.03					.12	.88	.51	.04	.31			.02				T.	T.		T.	.18	.17			T.		.32				2.58
Demos	Ohio		.48						.91	.72	.23	.22	.02	T.		T.		T.	.55	.02		T.	.05	T.			.23		.13	T.		.01	3.57
Dennison	Muskingum		T.					T.	.15	.11	1.19	.68			T.			.05		.20	T.	T.	T.	.03			.21		.17	.12		.48	3.39
Frankfort	Scioto							T.	.66	.63		.05			.10					T.	T.												1.44
Gallipolis ||	Ohio								.38	T.	.20		1.25		.08						.66						.03			.58			3.18
Garrettsville	Mahoning	.10	.11	.05				T.	.47	.30	.59	.28			T.				T.	.52		.32		.36			1.85	.11	.22	.56	T.	.05	5.89
Granville ||	Muskingum	.04	.10						.10	.08	.55	.33	.05	.11						.03	.41	.05	.03	.07			.39	.33		.28			2.95
Gratiot	do		.14					T.	.15	1.33	.12	.14	.02							.89	.03	T.	T.	.11			.72		.25			.51	4.41
Green	Ohio							.10	.15	1.00	T.	.10	.37				T.	T.	.10	.10	1.21	.17	.30							2.22			5.82
Green Hill	Muskingum	T.	T.						.15	.16	1.11	.20		.14					.05	.15	.47	T.	T.	T	.73			.20	.13	.61	.24		.25	4.59
Greenville ||	Great Miami		.08						.65	.03	.05	.33	.03		.34						1.49			.33	.22						1.53			5.08
Hamilton ||	do								.51	.07	.71	.61		.22	.46	.01	T.					.98			.15		.05			.47		T.	4.24
Haydenville	Ohio		.30						.10	2.15	.06	.10	.03		.64					.28			.31							.48			4.45
Hillsboro	Scioto																																
Ironton	Ohio							T.		.58		.29	.71	.22	.09					.41	.63	.47	.13				.02			1.78			5.33
Kenton	Scioto							.56			.04	1.21							.20			.91	.10						.41	.76		.10	4.29
Killbuck	Muskingum								.10	.74	.40	.43						.10		.35	.15	.03		.30			.03	.02	.15	.25		.25	3.30
Kings Mills ||	Little Miami								.08	.04	1.94	.26		.09	.45	T.					2.18	T.		.12			T.			1.85			7.01
Lancaster	Ohio		.25					T.	T.	.81	T.	.14		T.	T.				T.	1.10	T.		T.	T.			.50		.07	.03		.75	3.65
McConnelsville	Muskingum	.04	.26					T.	.42	.92		.58		.02						.88	T.			.03			.41		.02	T.		1.21	4.79
Marietta	Ohio								.26	.12	.10	.11	.02							1.22	.01		.15	.03			.38			.15		.25	2.80
Marion	Scioto							T.	1.70	.45	T.	.21											T.	.40			.03		1.10	1.02		.15	5.06
Milfordton	Muskingum							.10	T.	.85		.54			T.					.05		T.		.10			.30		.40	.04			2.38
Milligan	do			.15				T.	T.	1.17		.23			.02			T.		.87	T.			.05			.49		.02			1.75	4.75
Millport	Ohio	T.	T.						.17	.08	1.70	.26		.03	T.			.03	T.	.52	T.	T.		.41			.27	.05	.30	.63			4.45
Nellie	Muskingum								.10	.85		.80			T.			T.		.15				.10			.55		.12	.05		1.30	4.02
New Alexandria	Ohio	T.	T.						.55			T.			T.	T.				.50	1.50	T.	.20	.12			.28		T.	1.50		.43	5.08
New Berlin	Muskingum								.30	.40	.55	.43						.07	.20	.35		.10		.38			.05	.03	.50	.30		.43	4.09
New Waterford	Ohio		.43						.22	.27	.53		.22							.80			.80	.12			.10	.22	.02	1.40		T.	5.13
Ohio State Univ	Scioto		.15					.04	.19	.35	.08	.28		T.	.03				.01	.27	.01	.04	.09	.11			.02		.17	.07		.90	2.81
Oregonia ||	Little Miami																																
Pataskala	Muskingum	.05						.03	.10	1.11	.02	.41	T.		.01				T.	.48	.12	.05	.05	.11			.23		.22	.14		1.07	4.20
Peebles	Ohio							.05	.14	1.63		.04	1.71	.24						.12	1.33	.14	T.	.12						2.38			7.90
Philo (1)	Muskingum		.32					.05	.18	.10	1.03	.12								.42							.50		.08	.03		2.25	5.08
Piqua ||	Great Miami		.17						.36		.17	.32		.26	.20				.04		.24		.06	.16						.49			2.47
Plattsburg	do							T.		.85	.16		T.	.20	.34					.56	.09		.42	.15			T.		.14	.12		.52	3.55
Portsmouth ||	Ohio								.05	.50	.95			.01	.20					T.	.30	.96	.03		.03					2.33			5.36
Prospect ||	Scioto	T.						.20		.40				.60			T.							.45		.35		T.		1.20			3.20
Shenandoah	Muskingum							.20	.10	.20	.06	.73							.05		.27			.20			.14		.36			.20	2.51
Sidney	Great Miami							.14	.14	.13	.02	.11	.02	.11	.11					.50	.03	.06		.27	.60					.13	.39		.10	2.86
Somerset ||	Muskingum		.10	T.					.05	T.	.10	.12	.04								.78	.02		.10			.47	.21		.33	.01		2.33
Springfield	Great Miami		.12					.05	.09	.16	.04	.37	T.	.25	.13	T.				T.	.37	.05		.36	.07			.04		.21	.47		.26	3.04
Summerfield	Ohio		.71						.10	.40		.27		.03						1.20				.03			.72		.12	.27		.21	4.06
Syracuse	do								.40	.20	.20	.30	.10							1.10							1.60	.35					4.25
Thurman	do							T.		.70		.15			.20					T.	T.						T.			1.10			2.15
Urbana	Great Miami			.03			T.	.32	.15	.42		.64	T.	.03	.15				T.	1.27		.05	.23	.12			T.		.05	.07		.51	4.59
Warren	Mahoning	T.	T.	.04					.24	.12	.29	.46								.16	.19	T.	.42		.37			1.66		.65		T.	1.63	6.23
Waverly ||	Scioto	T.	T.			T.			.12	.47	.68	.05	.18	T.	.19						.12	.07	T.	.06	T.	T.			.02	.46			2.42
Waynesville	Little Miami							T.		.71	.93	.26	.05	.42	.02		.05	T.	.07	.08	.42		.10				.26			2.72			6.09
Wooster	Muskingum		.01					.07	.31	.88	.29	.76	T.					.03		.43	.03	.18		.52			.38	.15	.35	.18		2.75	7.32
Youngstown ||	Mahoning			.37					.16	.01	.78	.08	1.34	T.						.32	.22	.56		.32			2.00	.38		.52		.70	7.76
Zanesville ||	Muskingum	.13	.05	T.					.09	.05	2.53	.05	T.					T.			.53	T.	.01	.09			.12	.38		.37	T.		4.40
Indiana.																																	
Anderson	W. F., White		.17						.10	.38	.96	.07	.27	.55	1.43	.05		.05			.65	1.15	.07	.22	T.			T.					.03	6.15
Attica ||	Wabash								.02			.57	.74		.09	.54		.02	.08			1.25			.54					.46			3.85
Bloomington ||	W. F., White		.03						.35	.84	.55	.38		.14	1.45	T.	.08					2.26	.34	.18	.38				T.		1.04			8.02
Bluffton ||	Wabash		.02						.72	.04	.27	.80	.04		.14				.91		.04		.18	.24						.09		.02	3.51
Butlerville	E. F., White							.07	.09	.35	.24		.06	1.39	.67			1.72		.58	1.52	.38	.40				.18			.86			8.51
Cambridge City ||	Whitewater								.06	.03	.37	.50		.41	.95			.08			1.28		.08	.10					.25	.06			4.17
Columbus ||	E. F., White							.01	.02	.33	1.40	.38		.14	.39	.03	.05				1.98	.02	.27	.34						.23			5.59
Connersville	Whitewater									.80		.36		1.90	.10					.27	1.58			.48									5.49
Crawfordsville	Wabash							T.	.20	.90	.50	.20	.11	.70	T.		T.		T.	T.	3.00	.10	.55				.92						7.18
Delphi ||	do	T.	T.				T.	.05	.08	.59	.80	.35		.30	.84		T.	.05			.59			.17						T.			3.91
Eminence	W. F., White								.60	.20			T.	1.00	.09		T.		T.		1.70		.28					T.					3.87
Evansville	Ohio	.01	T.	.39				.01	.64	.32		T.	.14	.01			.23				1.08	.18	.85				.08			.06			4.00

TABLE 2.—*Daily precipitation for August, 1912. District No. 3*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Indiana—Contd.																																	
Farmersburg	Wabash	.27						.19	.10	.35	.37	.03	.55	.92	.17		.59		T.		1.25		.45							.30			5.54
Farmland ‖	W. F., White		.26						.50	.30	.52	.23			.60						.05	1.15	.03	.47	.26					.78			5.15
Forest Reserve	Ohio		.03	.14				.12	.10	2.59	.07		.80		.38						.37	.92	.07		.27					1.48			7.34
Greenfield	E. F., White							.57	.18	1.42	.25	.25	T.	1.30			T.				41	1.85		T.	.42			.50					7.15
Greensburg	do							.10	.25	1.00		.60		2.25							1.25		.25		.45							6.15
Hickory Hill	W. F., White							.03	.06	.49	.13	.16	.01	.83	.18					.53	1.44	.05		.12						74		4.77
Huntingburg	Wabash			.28					.31			.60				.30					1.54	.50		.39						.60	.35		4.87
Huntington	do	T.						.32	.18	.40	.22	.36		.10					1.36		.08	.12	.24					.15					3.53
Indianapolis	W. F., White					T.		.03	.20	.20	.74	.05	T.	.50		T.	.01		T.	.19	.81	T.	.35				.04		T.				3.12
Jeffersonville	Ohio		T.	.22				.33	.64	.20	T.	T.	.72	.01	.35			.22			.75	.49	.33	.10						.87			5.23
Judyville	Wabash							.07	.06	.55	.47	.91	T.	.77	.08		.22		.02	.25	1.65	.03	.50										5.58
Kokomo	do							.24	.39	.43	.23	.61	.33	.60			T.			.11	.17		.24						.02			3.37
Lafayette ‖	do		.02			T.		.09	T.	.12	.47	1.27	.21	1.14	.03		.03			.12	.12		.36					T.				3.98
Laurel	Whitewater								.01		.90	.18		1.43	.48	.34						1.32		.45			.01			1.32			6.44
Logansport ‖	Wabash		.14					.05	.10	.16	.60	.44			.64			.05			.30			.42									2.90
Madison	Ohio			.05				.08	.17	1.90	.04		1.35	.10	1.70					.27	1.30	.06		.21						.91			8.14
Marengo	do	.05			*	*	*	*	*	*	*	*	*	*	*	*	2.65	T.	T.	T.	1.68	.50	1.80				T.			.58			7.26
Marion ‖	Wabash		.09					1.16	.35	.48	1.78			.03	.40			.05			.15			.35						.04			4.88
Mauzy	E. F., White						T.	.04	T.	.52	.03	.17	T.	2.35	.21		T.	.01	T.	.07	1.47	T.	.05	.34			T.						5.26
Monticello ‖	Wabash		T.					T.	.98	1.00	.40	.60		.12	.79						.56			.34									4.79
Moores Hill	Ohio							.06	.07	.63	.23	.30	.01	3.40	.12		T.			.16	.90			.34			.03		.03			6.28
Mount Vernon ‖	do			.48	.14				.37	.45	.38		T.	.20	.19			.22			T.	1.05	T.	.24			.36	.02		.02			4.12
Nashville	E. F., White							T.	.05	.47	.46			.03	1.02		T.				.21	.65	.10	T.			.16			.80			3.95
Paoli	do		.27	.18				.04	.10	.47	.05	.26	.44	.05	.46			.08		.24	1.27	.17		.61						1.02	.01		5.72
Princeton	Wabash			.42					.31	.18	.15		.51			.38					1.73	.49		.52						.15			4.84
Richmond	Whitewater		.06					.03		.09	.29	.05	.10	.48	T.		.02	T.		1.58	.38	.67	.14			T.	.41		.92			.02	5.24
Rochester	Wabash					T.		.30	.02	.37	.19	.28		.32	.01				2.90	T.	.14	.01	.40			T.			T.				4.94
Rockville	do					T.	T.	T.	T.	.24	.17	T.	T.	2.81	.01		T.		.26		.97		.30			.05							4.81
Rome	Ohio	.27		.39				.17	.50	.28	.23	.01	.45		.10	.09		.07			1.31	.22		.51						.61	.10		5.31
Salamonia	Wabash		T.					.12	.48	.27	.08	.45	.55	.36					.16	T.	.15	T.	.45				T.	T.	T.	2.25		T.	5.32
Salem	Ohio		.14	.15				.45	.25	.75	.10	.08	.66	T.	.80			T.		.21	1.10	.10	.10	.45			T.			.44			5.78
Scottsburg	E. F., White	T.		.19				.11	.07	.95	T.		1.07		.75			.67		.80	1.15	T.		.32			T.			1.96			8.04
Seymour	do	.04		T.				.50	.05	.38	T.	1.00		.74		T.				T.	1.51	T.	.20						.70				5.12
Shelbyville	do							.05		1.03	.05	.02	.22	1.66	.22			.02	T.	.32	1.06		.16	.50			T.						5.31
Shoals ‖	do		.27	.14				T.	.14	.16	.50	.02		.18	.60			.10			1.07	.20		.84			.12			1.50			5.84
Terre Haute	Wabash	.62				T.		.26		.18	.04		.06	1.61	T.		.24		.60	.01	1.41	T.	.48			T.		.11	.02			5.64
Veedersburg	do					T.		T.		.15	.40	.15	.05	.23	.10		.08		.02		3.06	.01	.40	.01					.10			4.76
Vevay	Ohio								.40	1.50	.05		1.30		2.80	.40			.05	.35	2.45	2.00		.30					.40			12.00
Vincennes ‖	Wabash		T.	.30				.05	.15	.10	.25	.15		.10	.75			.30	T.	.25	1.30	.60	T.	.85			T.			.50	.50		6.15
Washington	W. F., White							.06	.63	.63	.36		.74	T.	.50		.14	.02	.05	.02	.99	.16		.47			T.			.33		.03	5.13
Whitestown ‖	do						T.	.01	.12	.41	.40	.23	T.	.25	.92			.03		T.	2.64	T.		.41				T.		T.			5.42
Winona Lake	Wabash							.36	.03	.81	.35	.42	.01	.13				.33	2.90	.01	.23		.70			.01		.10					6.39
Worthington	W. F., White		.56					.23	1.75	.23	.04	.42	.14	.23	.43		.03			.22	.57	T.		.43						.29			5.57
Illinois.																																	
Albion	Wabash			.44					.18	.28			.43		.19		T.				2.26	.28		.22			.06			.15			4.49
Casey	do								T.	1.35	.21		.15	1.12	T.				.65	T.			.26			T.			.70			4.44
Charleston	do							.02	.07	.87	.27		.10	1.06	.20	T.	.29				1.31		.20			.06		.02					4.47
Danville	do					.04	T.	.06	.09	.71	.27	.15	T.	.49	.10		.18		.05	.19	1.45		.70				T.	.04					4.52
Equality	Ohio		T.	.70				T.	.18	.20		T.	1.02		1.53		.14		.26		1.08	2.28		.61					T.			8.00
Fairfield	Wabash			.43					.02	.22	.07	.08	.44	.01	.17						2.48	.28	.30	.03			.04			.30			4.87
Flora	do			.26					.44	.62	.01	.12	.18		.56		.03				.74	.18	.14				.10			.15			3.53
Golconda	Ohio			.55					.70	.14	T.	1.05		.38	.04						.25	.38		T.			T.						3.49
Hoopeston	Wabash							.03	.05	.15	.91	.36	.05	.96	.05		.41				2.30		.23										5.50
McLeansboro ‖	Ohio			.50						.48	.36			.42	.26			.20			.40	1.35	.04	.38			.08			.01			4.48
Metropolis	do																																
Montrose	Wabash	T.						T.	.13	1.85	.03	T.	.90	.03	.85		.18		.19		.77	.05	.05				.56			.27			5.86
Mount Carmel ‖	do		.02	.40	.02			T.		.42	.64			.32	.86	.58		.04	T.		.74	.90	.02	.52			.06			.06	T.		5.60
New Burnside ‖	Ohio			.36	.22					.20	.55			1.50	.50	T.		.12				.35		.07			.11	T.		.06			4.04
Newton	Wabash			.18					.69	.60	.15	.21	.54		.60		.06				.06	.16	.02	.14			.04		.08				4.53
Olney ‖	do																																
Palestine	do			.10				.08	.71	.08	.10	.35	1.40		.65		.02	T.		.46	.45	.02	.54			T.		.34					5.30
Paris ‖	do		.28								.60	.27		T.	1.30		T.	.29		1.00	1.42			.65									5.81
Philo	do	T.				T.		.15	.06	.45	.52			.32			.58	.01	.05		1.05		.34										3.52
Rantoul ‖	do	.01	.14				.03	.01	.07	.81	.03	.17		.03	.05		.10	.48		T.	2.19			.26			T.						4.37
Rileyville	Ohio			.72					.12	.18			.50		.66				.23		1.23	1.59		.28			.21						5.72
Shawneetown ‖	do			.40	.11				.40	.37	.25		.01	.50	.32	.08		T.		.26		3.55		.40			.15			.11			6.91
Tuscola	Wabash							.15	.02	.42	.35	T.	.06	.18	.18	T.	.45			.13	1.42		.37			T.		T.		.05			3.78
Urbana	do					.01	T.	T.	.39	.02	.24	.02	.06	.29	T.	T.	.36				.45		.22										2.06
Kentucky.																																	
Alpha	Cumberland		T.	.35				.50	.20	.15	1.17	T.	T.	T.	T.	T.	T.	T.	T.		.60	.25	.18				T.						3.40
Anchorage	Ohio	T.		.22				.13	.23	1.20	.03	T.	.05	T.	.22			.25		.28	1.20	.42		.36						1.75	.07		6.41
Bardstown ‖	Salt			.26	.03			.05	.08	1.03	.28	.06	.13	.21					.03	T.	.38	.56	.05	.32					T.	.03			3.50
Beattyville ‖	Kentucky	T.		T.	.22				T.	.48	.28	.16		.14			.40		.16	.38	.58	.24	1.18	.52						.46		T.	5.20
Beaver Dam ‖	Green		.02	.10				.04		.55	.57	T.	.20	.50			.76					2.00	.18	.45				T.	T.		.22		5.59
Berea	Kentucky			.30						2.10	.25	T.		.38	T.	.03		.17	.73	.47	.20	.38	.20	.21	.11					.38	.05	T.	5.96
Blandville	Mississippi	T.	T.	.11					.24	.52	.07		.20		.35		.08	.01			.16	.03		.44									2.21
Bowling Green ‖	Green			.22	.22			T.	.52	.75			2.00	.25	T.			.35		.02		.05	.20	.25									4.83
Burnside ‖	Cumberland		T.	.07	.24				.10	.05	.07	.08	.16	.28		.12	.04					.46	.32	.12	.08				.16		T.			2.35
Calhoun	Green	T.	T.	.35				.02	.10	.64			.26			T.	T.		.05		.31	.77		.98			.10			.03			3.61
Catlettsburg ‖	Big Sandy								.14	.08	.24		1.50		.28					T.	.72	.20	.08	T.						1.80	.06		5.10
Earlington ‖	Green			.27	.07			T.		.55	.24		.25	.61								.60	T.	.38							.10		3.07
Edmonton	do			.32				.36	.24	1.97	.54	.28	.30	T.	.14	.10					.30	.60	.02		.22			.40						5.79
Eubank ‖	Cumberland			.02	.18				.07	1.30	.07	.28	.08	.40		.20	.32			.37		.40	.06	.35				.25		.50	.13		4.98
Falmouth ‖	Licking									.20	.90		.90	.60	.10	.16					.42	.04	.02	.21						.40			3.95
Farmers	do			.13				.10		1.37			1.23				T.	1.15	.15	.29	1.49	.05	.65						.81	.80			8.22
Frankfort ‖	Kentucky		.11	.92	.04				.61	.67	.71	.50	.63	.62	.39					T.		.74	.61	.41							.93	.14		8.03
Franklin	Green		T.	.31				.06	.07	.76	.05		.54	T.							34			.25			.33			1.02			3.73
Greensburg ‖	do			.02					.40	.80	.54	.10	.52	.43		T.	.03			.30		.72	.09	.34				.48			T.		4.77
High Bridge ‖	Kentucky		.04	.11	.12				.12	.79	.46			.15	.04					.10	.58	.50		.59						.57	.35		4.52
Hopkinsville ‖	Cumberland		.08	.05				.03	.15	1.80	.30		.03	1.25	.20	.04			T.			.55		.59									5.07
Irvington	Ohio			.57				.21	.68	.22		.10	.55		.17			.35			1.15	.17		.51						.05			4.73
Leitchfield	Green	.30		.25				.51	.60	.42	T.		.36	.05							.50	.30	.70				.02			.12			4.13
Lexington	Kentucky	T.	.04	.11				.02	.42	.53	T.	.06	T.	.28	.21			.16		.01	.32	.27	.33							.32	.15		3.23
Loretto	Salt		.21	.22				.27		1.01	.10	T.	.11							.76	T.	1.04	.05							.44	.20		4.41
Louisville	Ohio	T.		.18				.29	.74	.13	.01		.59	.24				.09	T.		.84	.40	.55						T.	1.00			5.06
Marion	do																																
Maysville ‖	do								.12	.35	.33		.21		.31				.02	.05	1.33	.30	.27	.20						.89		.03	4.41
Middlesboro	Cumberland			.27	.04			.06	.10	.53	.07	.58	.04	.03	.01			.02	.50	.10	.74	.75	.28				.22			.88	.12		5.41

TABLE 2.—*Daily precipitation for August, 1912. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Kentucky*—Contd.**																																	
Mount Sterling ‖	Licking		.17	.05	.22				.26	1.35	.40	T.	.04		.15			T.	T.	T.	.68	.43	.48	.25						.51	T.		4.99
Owensboro ‖	Ohio		.22	.21	.15				T.	.32	.05	.28	.33	.54	.21			1.25				1.68	.05	.55			T.	.08		.04	T.		5.96
Paducah ‖	do			.20				.16	T.	.20	.04		T.	.70	T.		.10							.10								1.50
Paintsville	Big Sandy																																
Pikeville ‖	do	T.			.05			T.	.25		T.	.10	.50	T.	T.	.10			.35	.40	.25	.10	.12	.20				.10	T.	.50			3.02
Richmond ‖	Kentucky			.02	.13				.11	.90	.45	.03	.09	.09	.12		.33				.67	.57	.03	.40						.41	.01	T.	4.36
St. John ‖	Salt		.28	.12				.37	.21	1.10	.70			.13	.10				.20		.60	.75	.13	.82									5.51
Scott	Licking							.10	.20	.67	.05	.10	.55	.33	T.				T.	T.	.55	1.91	.27		.27			.05		.02			5.07
Shelby City	Kentucky			.26				.12	.25	1.37	.05		.10	.05						1.06	.09	.57	.17		.28					.21	.04		4.62
Shelbyville ‖	Salt			.35					.25	.50	.35	.25	.20	.40								.85	.65		.35					1.00			5.15
Taylorsville	do		.05	.17				.27	1.12	1.18	.01	T.	.11	.01		.31		.07	.03	.17	1.18	.08		.74			T.			.48	.01		5.99
Williamsburg ‖	Cumberland	.10		.03	.40				.07	.05	T.	.35	.10	.10	T.						.87	.20	.05	.12	.67			.10	.15		.45	.35		4.16
Williamstown ‖	Licking			.01					.20	.40	1.10	.06	1.07	.05	1.38							1.15	.16	.11	.10						.17	.60		6.56
Tennessee.																																	
Ashwood	Tennessee							.75	.22	.87	.10	.05	.10	.35	.10	.05	T.					.22		.40			.10							3.31
Benton	do			1.00				.20	.70	.40	.10					T.		.25		T.		T.	1.02										3.67
Bird's Bridge ‖	do				.47						.15			.14		.13						.10	.42	.24							.13		2.96
Bluff City ‖	do				1.02				T.		.49		.37	.48					.18	.25		.23	.11					.07		.06	.05		3.31
Byrdstown	Cumberland			.60				.85		.12	.20	.05	.05		.17	.15	.05				.16	.05					.27			.05			2.77
Carthage ‖	do			.05				.05	.58	.12	.20	.25		1.46					.44	T.		.54	.01	.46				.04			.68		5.38
Cedar Hill	do	T.	.02	.11	.03			.10	.85	.75	.09		.62		.08	T.					.02	T.		.35			.15						3.17
Celina ‖	do			.93					.67	.14	.25	.45		.10		.60			.11	.15	.09	.48	.03	.12				.20					4.41
Charleston ‖	Tennessee	.98		.32	.10				.50	.46	.75			.08									.20										3.49
Chattanooga	do	.02		.04				1.03	.94	.80				.08		.08		2.34	.08		.02	.21	2.98		.04	.13	.03						8.88
Clarksville	Cumberland			T.				.30	1.84	.85	.02		.34	.01	.07						.08	T.		.22			.25						3.98
Clinton ‖	Tennessee	.11			.18				T.	.16	.50	T.	.20					.24		T.	.04	.20	.16	.36	.05		T.				.08		2.28
Crossville	do		.21	.04				.15	.30	.65	.02	.02			.33	.01	.75	.17	.02		.22	.70	.10	.22		.07	.10		T.					4.08
Dandridge ‖	do	.50			.02						.07					.01				.22	.20	.80	.68										2.50
Decatur	do	T.	.01	.23	T.			.29	.57	.12	.25		T.	T.		.07	T.	T.	T.		.02	T.	.21	.37		.23	.35						2.72
Dickson	Cumberland								.27	.69	.32	1.38	.20	T.		.16	.18				.08			1.11			.15						4.54
Dover	do			T.				T.	.90	.27	.15	T.	.28		1.60				T.		.73		.90			T.						4.83
Dunlap	Tennessee			.55				.72	.50	.25					.18	.15	.43	1.00	1.72		.25	.50	.87			.35	.50						7.97
Elizabethton ‖	do	.03		T.	.04						.30					.19			.75	.05	.41		.82			.10	.04				.50		3.23
Erasmus	Cumberland		.14	T.			.42	1.04	.54		.05			.23	.94	1.06	T.	T.	.10	.11	.27	.50	.14	.29		.23	.08			.22			6.36
Florence	do			T.				.77	.22	1.38		.06	.50	.15	T.	.40	.10		T.		T.	.03		.54			.06						4.21
Franklin	do							.72	.10	.39		.29	1.30			.25	.15		T.		.42			.24			.13						3.99
Hall's Hill ‖	do							T.	.70	.10	.30			.55		.20	.25					.55		.18				.63					3.46
Harriman	Tennessee																																
Hohenwald	do							.39	.31	.54	.20	.32	.05	.56	.15	.61	.11					1.13		.09			.17						4.63
Iron City	do			1.00				1.40	.87	1.56				.15	T.	.06	T.						1.15				.40						6.59
Jefferson City ‖	do		.02	.34	.12				.06	.82	.21	.02			.63					.45	.56	.46	.45	.04		.04	.01						4.23
Johnson City	do				.49					.04	.21	.02	.04	.02		.04			.43		1.60		.81	.05				.05			.41		4.21
Johnsonville	do							.13	.20	.20	.72	.58	.25		.02	.14	.02				.05			.08			T.						2.39
Kingston ‖	do	.10		.15					.10	T.	.11						.27				.28	.05	.49	.12				1.40			.10		3.17
Knoxville	do		T.					T.	T.	.74				T.	.42	.01				.28	.08	.50	.43	.02	T.		.16			.02			2.66
Lebanon	Cumberland			T.				.70	.08	.94	.01	.44	.14	.23	.25	T.			T.		.45	.05		.66			.16			T.			4.11
Lewisburg	Tennessee			T.				1.64	.25	1.08		.15		.40	.08	1.00	.09		.23		T.			.02		T.	.56						5.50
Loudon ‖	do	1.20		.12				T.	T.	.09	.30						.27				.05	.72	.45	.18				.66			.26		4.30
Lynnville	do							1.25	.51	1.84	.17			.46	.27	.12						.62		.02			1.08						6.34
McGhee ‖	do	2.25		T.						.65	.95					.10						.25	.20	.60				.21					5.21
McMinnville	Cumberland							.50	.40	.25									.10		.08	.10				1.30	.80						3.53
Maryville	Tennessee		.12	.25	1.01					.66					.40					.51	T.	.41	.16			.18				.31			4.01
Mountain City	do		.04	.11	.72				.06	.96	.45		.31	.13		.05	.05		.35	.32	.12		.13							.21			4.01
Nashville	Cumberland		T.					.45	.26	.26	.22	.02	.48			.02	.14				.36			.59			.20						3.06
Newport ‖	Tennessee	.73							T.	.03	.30					.20		.03		T.	.50	.20	.60	T.			T.	.05					2.64
New River ‖	Cumberland				.52						.16	.38					.30	.48	.64	.41		.53			T.			.13			.12		3.67
Palmetto	Tennessee			T.				1.90	.15	.78		.05		.45		.26	T.					.22					.97						4.78
Perryville	do							.53	.83	.56	.21	.16		.44										.48			.19						3.40
Pinewood	do							.20	.50		.05	.27	.72		.31	.30					.09			T.			1.50						3.94
Rogersville ‖	do	.12		.02	.28				T.	.26	.58		.42	.06		.06	.10		.08	.04	.02	.38	.66	T.		T.		.05		T.	.22		3.35
Rugby	Cumberland		.69	1.35				.50	T.	.23	.33	.17			.55	.81	.64	.80	.35		.70	.40		.05			.26			T.			7.83
Savannah	Tennessee			.03				.40	1.50	.87				.42	.05	.32	.03						.42				.17						4.21
Sevierville	do								.07	.40	.46		.07		1.11				.02	.11	.48	.20	.14				.04			.65			3.75
Sewanee	do																																
Sparta	Cumberland		.02	T.				.70	.25	.50					T.	.26	T.	T.	.03		.38	.10	.05	.10		.05	.42			.20			3.06
Springville	Tennessee							T.	.78	.23	.36	.18	.92	.04	.06	.02	T.				.51	.01		.32			.05						3.48
Tazewell ‖	do	.07		.05	.35				T.	.10	1.67	.20	1.05			.06	.07	T.	.14	.08	.15	.25	.37					.20		T.	.37		5.18
Tullahoma	do							2.65	.38	.28	.02			.20	T.	.32	.01				T.		.11	.05		.12	.97						5.21
Walling ‖	Cumberland	.01							1.01	.10	.20						.08			.05		.30	.05	.25									2.05
Waynesboro	Tennessee						T.	.56	.75	1.04		.18		1.02	T.	.25	.10						T.	.04			1.30						5.24
Wildersville	do							.35	.45	.05	.21		.30	.19		.28	.15						.08				.05						2.11
Worsham ‖	Cumberland			.03				.15	.16	.35	.11		.15		.01						.05		.47				.11	.04					1.63
Yukon	Tennessee			.08				1.45	.70	.71					.19	T.	T.				.03	.40	1.15		.07		.37						5.15
Alabama.																																	
Bridgeport	Tennessee	1.17			.49			.03	2.00	.12	.72					.30	.09			.35		.21	.56				.58	.24					6.86
Decatur	do	T.			T.			.12	.90	.66	.61			.50			.08						.42	.12		.90		.99					5.30
Florence	do	.12			1.10			1.65	1.49	.62	.23			.13									2.03					.22					7.59
Guntersville	do	.26			.02			.06	2.65	.40	.41						.08	.52					2.40	.23	.02			.05					7.10
Riverton	do	T.			.14			.71	.80	2.12	.21		.67	.25			.15	.47	.20	T.			.90					.18					6.80
Scottsboro	do	.17		.57				1.10	1.98	.53	T.					.90	.29	.51					.28			.02	.06						6.41
Tuscumbia	do	.09			.14			2.35	1.11	1.00	.12			.20				.04					1.51					1.80					8.36
Georgia.																																	
Diamond	Tennessee	.25			.17			T.	.67	1.20	.61							1.16	1.34	T.			.13	.03	T.								5.56
North Carolina.																																	
Andrews	Tennessee	.82		.09	.05				.20	.25	.55				.25	.05	.11		.62	.10	.01		.42	.06			.51						4.09
Asheville	do			.50	.12			T.	T.	.35	.01			T.	.13	.36	.01	T.				.09	.01	T.		.11	.16			.01	.02		1.88
Banners Elk	do			.28					.23		.24		.05		.03				.10		.30	.15		.10			T.				.10		1.58
Blantyre	do	.85		.03	.12						.01			.17	.01		.25	.15	.02		.01		.01			.15		.01		.01			1.80
Blowing Rock	Great Kanawha.			.02					1.65							.07										.97							2.71
Brevard	Tennessee																																
Bryson City ‖	do	1.87			.71			.11	.50	.28				.17			.63						.83	.18					.60				5.88
Cullowhee	do	.57		.01	.47				.12	.05	.25			.20	.05	.02	.11	1.95	T.	.07		.06	.13				.19						4.25
Eagle Nest	do	.21			1.25				.37		.08				.11	.10	.07	.25	.52			.44			.04					.25			3.09

TABLE 2.—*Daily precipitation for August, 1912. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***North Carolina*—Continued.**																																	
Hendersonville	Tennessee			1.20	.95					.14				.43			.27				.18											3.17
Highlands	do				.42					.51	.26					.10	.35	.12					.40			2.00							4.16
Hot Springs	do		T.	T.							.37				.02							.21	.28	.48						.25		1.61
Jefferson	Great Kanawha.	.10		.06	.16				.13	.03	T.	T.	T.	T.	T.	T.	.13	.01	T.		.52	.04					T.			T.	.09		1.27
Marshall	Tennessee	.03	T.	T.					T.	T.	.27			T.	.04		.34	T.	T.		.25	.23				.52				T.	.17		1.85
Murphy ‖	do	.93		.16						.69	.94					.25			.99			.05	.63										4.64
Rock House	Savannah																																
Waynesville ‖	Tennessee	.74		.01	1.52				T.	.28	.19			.05	.02	.06	.01		.07	.70		.03	.25				.24	.01			.19		4.37
Virginia.																																	
Blacksburg	Kanawha			.04	.20					.34	.03	.02		.20				.01	.03	.04	.41		.24	.06			.13						1.75
Burkes Garden	Tennessee			.23	.35				T.	.26	.27	.05	T.	.24		T.		.79		T.	.85		T.			.50	.38				T.		3.92
Elk Knob	do			.20	.06			.05	.12	.68	.13	.52	.53	.59	.04	.02	.02	T.	.01	.42	.25	.06	.49	T.			.59	T.		.15	.10		5.03
Ivanhoe ‖	Kanawha	.44	T.		.66	T.				.02	.28		T.	T.	T.		.15		.03		.02							T.				.12	1.72
Max Meadows	do			.15	.50												.03				.10						.23			.10	T.		1.18
Mendota ‖	Tennessee				.15				.12	.40	.10	.40	.10	.08			.10		.27	.08			.68				.15	.80		.10	.06	.10	3.69
Mountain Lake	Kanawha			.05	.15							.83		.15					.80	T.	.52		.25				.22						2.97
Radford ‖	do	T.			.50					.20	.12									.20	.26	.34	.42					.18			.20	.24	2.66
Speers Ferry ‖	Tennessee								.60	.20	.52	.20		.10			.60					.20	.60					.27		.26	.10		3.65
Wytheville	Kanawha			.24	.29				.06	.36	.07	.02	T.		T.	.05		.10	T.	.04	.32		.26	.01		.02	.06			.07	.01		1.98

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 3.*

Date.	Pennsylvania.				West Virginia.														Ohio.							
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.§§		Morgantown.		Parkersburg.		Wheeling.§§		Canton.§§		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	71	43	69	53	78	57	74	56	69	50	78	56	77	56	71	53	72	56	78	52	74	46	79	58	72	54	76	53
2	73	46	70	55	80	57	75	48	74	46	82	53	81	58	69	48	78	56	76	60	74	54	78	63	75	56	73	58
3	66	45	67	51	77	57	75	50	65	46	76	52	71	58	69	49	72	54	72	47	69	46	73	56	70	51	70	50
4	68	39	65	49	72	52	74	43	68	45	74	50	73	51	66	47	69	55	71	49	69	43	71	52	69	49	71	48
5	75	40	73	49	75	50	73	50	71	42	89	47	75	50	72	45	73	49	75	48	76	43	74	54	73	50	75	48
6	76	42	75	58	80	55	77	54	70	48	83	54	80	52	76	53	80	58	79	49	77	49	83	62	78	60	80	60
7	83	47	80	63	83	60	80	56	80	53	87	57	79	58	84	57	82	63	84	56	81	53	79	64	82	62	79	65
8	79	61	76	67	80	66	77	58	74	61	80	64	82	62	----	----	77	67	76	58	78	64	78	67	80	66	78	66
9	81	64	81	68	85	67	79	58	85	64	90	64	85	67	85	65	84	67	83	65	82	64	81	68	80	66	76	65
10	81	59	79	65	85	66	76	60	76	60	93	61	82	66	79	63	81	66	82	65	79	64	80	63	79	64	77	64
11	73	58	78	64	84	63	79	57	80	54	94	61	82	65	77	63	82	67	80	63	75	62	82	67	76	64	77	65
12	80	57	81	65	83	67	80	64	80	64	85	66	86	65	82	65	84	67	85	61	82	58	86	67	86	65	84	63
13	84	60	80	71	84	69	80	62	81	62	86	67	85	68	78	63	83	74	84	67	80	64	85	68	80	67	83	66
14	80	57	77	70	86	70	84	60	84	68	93	68	87	68	84	64	84	70	78	68	83	64	80	67	81	65	78	65
15	78	52	78	63	86	70	83	64	80	59	90	67	83	63	81	64	81	68	85	61	79	56	83	69	80	61	82	61
16	75	47	75	58	83	69	82	56	80	55	87	60	83	63	84	58	82	64	82	58	76	55	83	69	79	62	83	64
17	76	54	73	57	85	68	84	60	83	54	90	59	88	63	84	68	87	62	79	55	73	50	90	68	88	62	87	65
18	86	45	87	65	89	68	83	64	84	65	92	60	89	68	78	63	90	73	90	58	89	58	92	73	88	71	90	71
19	78	63	86	67	85	67	84	62	79	65	80	67	87	72	----	----	86	69	89	69	86	68	89	71	88	69	88	69
20	85	65	79	68	82	69	82	64	79	66	87	68	83	70	79	69	83	69	82	69	83	65	82	68	83	67	81	68
21	77	63	76	69	80	68	79	60	75	63	80	67	76	72	----	----	79	70	79	69	76	65	80	70	80	68	80	67
22	81	59	79	68	83	67	80	64	80	62	87	59	81	68	80	66	83	69	83	68	80	60	82	66	80	63	80	63
23	73	57	72	60	79	66	78	58	71	57	80	65	79	65	79	63	76	63	77	61	73	57	79	63	76	59	76	59
24	81	49	80	59	82	60	81	52	82	51	82	64	85	59	83	68	85	59	84	55	82	50	86	59	83	58	82	58
25	89	58	85	67	87	65	84	60	83	55	87	63	87	64	79	65	88	65	90	56	86	51	90	67	88	64	87	66
26	84	62	83	68	84	65	81	61	80	61	90	67	82	70	71	70	84	67	83	64	84	67	85	74	86	68	86	66
27	76	46	74	56	78	65	77	58	72	51	91	65	78	66	71	63	73	60	77	65	68	57	76	62	73	57	74	58
28	62	43	66	48	81	57	82	50	77	49	80	50	80	55	71	46	74	53	69	49	69	45	87	56	76	52	83	56
29	72	56	72	60	83	67	81	60	74	58	81	65	84	57	70	63	79	65	72	51	71	54	85	69	76	60	75	62
30	74	48	73	51	84	66	82	64	78	57	86	66	82	66	79	65	80	60	77	53	74	46	89	66	82	58	83	59
31	89	59	86	62	88	69	85	62	86	62	93	65	89	66	87	63	91	67	90	54	88	54	91	73	90	69	90	71
Mns.	77.7	53.3	76.6	61.1	82.3	63.9	79.7	57.9	77.4	56.5	85.6	61.2	82.0	62.9	77.4*	60.3*	80.7	63.6	80.4	58.8	77.9	55.9	82.5	65.1	79.9	61.5	80.1	61.9

Date.	Ohio.				Indiana.										Philo, Ill.		Kentucky.									
	Marion.		Waverly.§§		Butlerville		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.				Beattyville.§§		Bowling Green.§§		Earlington.§§		Greensburg.§§		Lexington.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	76	49	76	51	80	49	84	62	76	54	74	45	81	49	80	55	81	50	82	53	87	56	89	55	85	52	77	57
2	74	56	79	53	80	58	81	66	75	58	74	54	79	54	77	57	76	53	84	56	89	59	88	61	85	55	77	60
3	71	45	72	53	75	55	71	57	68	51	69	42	72	51	72	56	71	49	68	58	76	59	68	60	68	59	68	55
4	70	42	72	49	73	44	71	53	72	49	73	42	75	46	72	47	71	45	69	48	76	49	78	48	70	47	70	51
5	76	42	73	46	77	45	75	55	74	52	73	42	80	46	77	49	75	45	74	45	83	49	83	53	68	43	73	51
6	83	54	79	48	85	58	82	59	79	62	79	55	83	57	81	54	82	54	70	55	86	55	89	51	84	54	81	59
7	82	57	82	58	75	66	79	69	73	65	75	61	75	61	75	65	78	64	79	58	71	60	82	61	71	57	75	64
8	82	63	82	60	82	66	79	68	79	65	81	64	86	67	81	65	85	66	74	63	84	60	85	67	81	61	77	64
9	75	66	83	67	76	66	74	63	72	64	75	64	76	66	76	68	73	64	78	65	80	65	80	68	78	64	77	63
10	80	63	81	62	80	60	79	62	77	60	76	60	79	58	77	59	75	57	84	62	84	60	83	59	79	60	78	63
11	75	63	80	62	82	67	84	67	78	65	76	62	85	66	82	64	80	65	74	58	85	60	88	63	80	61	80	63
12	87	61	86	64	86	65	83	68	82	64	84	55	81	60	83	66	82	60	74	58	89	67	88	69	87	57	85	68
13	83	66	84	66	86	65	87	68	84	66	85	65	90	67	87	67	89	67	85	64	91	63	92	66	89	62	84	67
14	85	66	82	65	82	65	86	68	82	67	83	66	87	65	77	65	85	67	81	66	87	64	91	65	86	64	85	67
15	83	55	83	61	83	63	86	70	82	65	83	56	87	59	84	65	83	61	85	65	87	65	93	65	88	66	81	68
16	82	56	83	61	86	56	84	72	80	68	78	62	81	65	85	68	73	59	87	61	90	67	93	66	89	63	82	67
17	85	54	87	63	91	66	91	73	87	69	87	61	92	64	90	66	90	64	89	60	93	67	96	69	90	66	88	68
18	91	68	92	65	92	70	91	75	90	72	90	69	94	71	92	73	92	70	98	66	92	67	96	72	91	69	87	72
19	88	69	91	70	89	72	92	75	86	71	84	70	89	72	88	73	88	72	96	67	95	71	98	73	93	69	86	71
20	88	66	85	69	85	67	84	70	80	68	82	68	86	62	84	69	84	66	88	65	89	71	93	75	87	67	82	67
21	83	63	81	68	83	68	79	70	83	68	83	66	87	68	81	70	85	67	81	67	90	66	83	68	78	65	75	67
22	82	63	85	65	82	66	83	66	80	63	80	61	85	60	82	64	83	59	84	64	86	66	87	67	84	65	80	61
23	74	55	79	61	80	61	82	66	78	59	74	56	80	56	79	59	79	54	80	61	89	60	87	62	83	57	78	61
24	85	57	83	54	85	56	85	66	84	61	85	57	88	58	85	58	87	59	90	59	90	60	94	55	85	59	83	62
25	90	62	88	56	90	65	89	70	89	67	88	67	93	66	90	65	90	67	88	63	91	60	94	63	90	60	86	66
26	89	71	88	62	85	70	88	70	89	68	87	71	92	67	90	71	92	73	82	63	85	60	94	72	78	65	84	68
27	80	67	77	65	78	62	79	66	74	58	78	50	81	56	82	62	78	56	81	62	87	63	89	66	85	62	75	61
28	74	48	80	49	88	57	90	64	88	58	88	51	92	55	90	56	93	55	88	53	84	57	96	58	89	53	85	57
29	71	64	83	50	89	67	91	73	81	66	84	66	88	66	88	68	85	64	90	56	92	60	96	68	88	55	85	66
30	82	53	85	61	90	68	89	74	88	66	86	60	92	66	89	69	89	66	90	67	95	60	98	69	92	68	88	71
31	88	66	91	62	91	72	92	75	90	74	91	70	96	74	91	73	93	71	91	66	95	65	97	72	93	67	88	71
Mns.	81.4	59.0	82.3	59.5	83.4	62.4	83.5	67.1	80.6	63.3	80.8	59.5	84.9	61.2	82.8	63.4	82.8	60.9	82.7	60.5	87.0	61.4	89.3	64.1	83.7	60.4	80.6	63.7

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 3*—Continued.

Date.	Kentucky.						Tennessee.														Decatur, Ala., §§.		Asheville, N. C.		Virginia.			
	Louisville.		Maysville §§.		Williamsburg §§.		Chattanooga.		Johnson City §§.		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.						Blacksburg.		Wytheville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	83	60	81	51	80	54	83	64	81	58	81	61	85	60	84	59	83	56	85	57	85	66	74	58	72	54	70	52
2....	82	62	83	53	82	58	87	60	83	53	81	59	87	68	88	61	87	60	90	57	92	64	80	52	77	45	76	48
3....	73	57	77	55	75	62	87	67	73	60	74	64	78	61	86	66	83	66	88	65	72	64	77	60	68	55	65	55
4....	74	52	76	47	74	57	77	63	74	57	76	61	75	56	78	57	80	50	77	55	78	63	68	56	72	52	70	51
5....	77	55	80	46	80	54	80	58	79	47	81	58	80	58	82	56	80	50	82	49	82	56	72	51	74	49	74	45
6....	84	64	88	47	84	54	80	62	83	55	82	61	83	60	84	59	85	57	82	55	86	57	75	58	75	52	74	50
7....	73	67	85	58	80	60	71	66	84	58	78	64	76	68	78	66	73	63	80	65	83	63	74	56	79	49	78	54
8....	78	66	88	60	88	64	79	67	80	61	80	66	81	70	82	69	83	65	83	67	84	68	70	64	71	59	68	62
9....	78	64	85	65	85	68	84	67	85	66	83	66	78	68	80	66	84	68	79	69	84	69	78	61	80	64	79	61
10....	80	64	85	61	83	65	83	66	85	61	82	66	83	66	82	66	84	65	84	62	87	67	80	60	80	58	76	60
11....	85	68	86	62	84	62	82	69	85	60	84	69	86	66	84	68	86	66	87	67	86	64	83	56	82	55	78	60
12....	87	68	91	64	89	64	88	67	87	59	86	68	88	68	87	68	89	67	88	67	89	68	83	57	82	53	78	61
13....	88	68	89	66	88	66	90	71	86	63	88	72	87	67	85	66	89	66	86	65	87	68	82	60	80	60	78	61
14....	86	67	89	64	88	64	89	69	89	63	88	69	88	72	88	69	87	66	90	66	88	68	83	64	86	65	82	66
15....	85	69	88	64	89	67	83	68	87	62	86	67	88	69	87	68	89	67	88	67	92	71	82	62	84	62	78	64
16....	89	70	89	63	90	66	88	68	90	63	86	66	86	69	88	67	89	67	87	65	89	71	82	64	81	55	82	59
17....	91	71	94	62	89	69	88	68	93	65	90	69	91	71	90	69	91	67	92	65	93	71	80	63	79	59	80	61
18....	93	73	95	65	88	68	89	69	88	67	90	70	92	75	90	71	88	67	93	69	93	72	85	65	84	65	82	64
19....	91	76	95	70	91	69	91	71	87	66	87	70	92	76	91	72	91	70	93	69	94	73	82	64	86	63	83	66
20....	87	68	89	66	89	70	91	72	84	68	86	70	88	68	92	71	87	69	93	69	94	73	84	64	82	65	80	66
21....	79	70	80	67	83	68	91	70	87	63	88	65	87	68	90	68	89	68	90	67	95	72	85	62	78	61	78	64
22....	83	64	85	64	86	69	84	69	83	66	83	70	84	71	85	72	86	71	86	70	86	70	81	62	81	63	78	62
23....	82	64	82	60	84	65	88	70	81	65	85	65	86	67	86	69	84	63	87	68	88	69	78	61	75	59	74	55
24....	88	62	90	56	88	58	85	66	84	57	86	62	89	64	88	62	89	59	90	60	90	70	80	55	82	48	82	50
25....	91	67	94	58	89	63	88	69	84	63	87	70	89	69	90	67	85	67	90	65	90	68	81	62	85	58	81	58
26....	90	74	93	70	84	60	88	66	84	65	84	66	84	69	88	65	87	64	90	65	91	71	85	60	83	65	80	64
27....	80	66	81	66	85	65	88	64	84	65	86	66	87	66	86	62	86	62	91	61	85	68	81	60	79	62	78	58
28....	91	60	90	51	90	58	91	67	92	60	90	62	91	64	90	66	91	64	92	61	89	64	84	60	81	45	83	50
29....	90	68	91	51	90	63	90	68	88	63	83	69	90	74	89	68	86	65	91	65	92	70	82	62	82	60	81	65
30....	90	73	90	60	94	68	91	69	87	66	91	69	92	70	91	69	91	66	91	65	92	70	82	60	85	60	82	65
31....	93	75	95	66	95	65	92	69	92	65	92	69	92	75	92	72	92	65	93	67	94	71	87	60	88	61	84	65
Mns..	84.5	66.2	87.2	60.1	85.9	63.3	86.0	67.1	84.8	61.6	84.6	66.1	85.9	67.5	86.5	66.3	86.3	64.1	87.7	64.0	88.1	67.7	80.0	60.0	79.8	57.5	77.8	58.8

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 4, THE LAKE REGION.

J. H. ARMINGTON, Acting District Editor.

GENERAL SUMMARY.

Unseasonably cold, cloudy, wet, and for the most part disagreeable weather prevailed in the Lake region during August, 1912. High relative humidity, as in July, continued throughout the month, and the number of clear days was remarkably small. In fact, in some localities, the damp, cool weather was so pronounced as to interfere seriously with harvesting and thrashing, and to lengthen considerably the season required for the proper maturing of corn. Some grain and root crops were reported damaged by the continuous rains, while in New York State it was estimated that the yield of grapes would be reduced nearly 25 per cent. On the other hand, the weather conditions were unfavorable for many kinds of insect life, and as a result tree fruits in that region were in excellent shape and gave promise of an abundant harvest. The weather was generally quite favorable for the growth of grasses, but at the end of the month vegetation, as a rule, was in need of warm weather with bright sunshine.

The following table summarizes the chief features of meteorological interest in the various portions of the district:

Portions of States.	Mean temperature.	Departure.	Mean daily range.	Mean precipitation.	Departure.	Greatest precipitation in 24 hours.	Number of days.				Prevailing wind direction.
							With 0.01 inch or more	Clear.	Partly cloudy.	Cloudy.	
Minnesota	58.9	−4.6	12.3	3.00	−0.80	1.02	10	6	13	12	ne.
Wisconsin	63.4	−3.5	13.8	5.23	+2.66	3.38	12	9	10	12	ne.
Illinois	71.0	−0.2	12.9	3.59	+0.71	1.83	9	8	15	8	sw.
Indiana	69.3	−2.1	19.1	4.26	+1.34	3.10	11	14	10	7	sw.
Upper Michigan	58.4	−4.5	12.7	5.00	+1.93	2.85	12	7	8	16	nw.
Lower Michigan	64.7	−2.9	15.7	3.85	+1.17	2.97	11	8	12	11	sw.
Ohio	67.5	−2.3	14.8	3.85	+0.71	2.30	16	10	12	9	sw.
Pennsylvania	66.2	−3.7	11.7	5.90	+2.64	1.19	16	1	13	17	s.
New York	62.9	−3.4	15.3	3.75	+0.59	1.67	15	6	15	10	w.
Vermont	61.5	−3.7	18.4	3.92	−0.46	1.55	16	4	14	13	s.

TEMPERATURE.

Mean temperatures were below the normal in all portions of the district, and August was the fifth month of the present year to present such conditions. The average daily deficiency for the Lake region since January 1, 1912, is now between 3° and 4° generally. In a number of localities, especially in the Lake Superior region, the month was the coldest August on record, and the temperature of nearly every day was below the seasonal average. There were no exceptionally warm days during the month, the regular Weather Bureau stations in the district reporting only 10 instances on which the daily mean temperatures rose to 10° or more above the normals, while deficiencies of 10° to 14° were frequent. Periods of moderate warmth occurred on the 9th–14th, 18th–22d, 24th–26th, and 31st, but none extended over the entire district on any one day. The 1st–5th and the 15th–17th were exceptionally cold for August, as were also the last four days of the month in the New York and Vermont sections. Frost or freezing temperatures were reported at several stations in northeastern Minnesota, upper Michigan, and New York State during the course of the month, but considering the prevailingly low temperatures frost did not occur as often as might be expected, and but little damage resulted.

PRECIPITATION.

Precipitation was frequent in all portions of the Lake region during August, especially over the eastern sections, where the number of rainy days was the greatest on record for this month. Yet the average amounts for the period were not exceptional and were even somewhat below the normal over the western Lake Superior region and in the Champlain Valley. During the 17th–19th a number of severe thunderstorms occurred over the southern portions of the district, causing considerable damage as a result of lightning, wind, rain, and hail. Trains were delayed by washouts, telegraph and telephone lines were blown down, buildings were destroyed by lightning, and a number of lives were lost. In Portage County, Ohio, eight bridges were destroyed by high water following the heavy rain of the 26th.

Snow was reported by the newspapers to have fallen at Lapeer, Mich., on the 2d, but investigation proves that the phenomenon was hail falling in very fine pellets.

AUGUST, 1912, LAKE LEVELS.

The following data are from the report of the United States Lake Survey:

	Lake Superior.	Lakes Michigan-Huron.	Lake Erie.	Lake Ontario.
	Feet.	*Feet.*	*Feet.*	*Feet.*
Above tidewater at New York	602.49	580.58	572.45	246.66
Above or below:				
Stage of July, 1912	+0.23	+0.10	−0.11	−0.35
Stage of August, 1911	+0.25	+0.76	+0.84	+1.47
Mean stage August last 10 years	−0.25	−0.45	−0.24	+0.04
Highest recorded stage	−1.44	−2.93	−1.66	−1.60
Lowest recorded stage	+0.89	+0.70	+1.07	+2.31
Probable change during September	+0.10	−0.20	−0.30	−0.40

TABLE 1.—*Climatological data for August, 1912. District No. 4, Lake region.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Minnesota.																			
Cloquet	Carlton	800	1	57.8	.....	80	12†	32	2	34	3.24	.....	0.70	0	7	1	20	10	e.	Walter McDonald.
Duluth	St. Louis	1,133	41	57.4	− 7.5	78	21	42	2	22	3.25	− 0.28	1.02	0	15	3	11	17	ne.	U. S. Weather Bureau.
Floodwood	....do	1,257	6	.....	.....	.....	.....	.....	.....	.....	3.12	.....	1.00	0	8	9	3	19	.....	M. H. Schussler.
Stephens Mine	....do	1,500	5	59.8	.....	88	12	33	4	40	2.86	.....	0.90	0	10	12	13	6	w.	Oliver Iron Mining Co.
Two Harbors	Lake	614	18	59.6	− 3.7	84	13	40	15	28	2.45	− 1.30	0.80	0	7	5	19	7	ne.	G. W. Watts.
Virginia	St. Louis	1,434	18	59.8	− 2.5	81	11	36	4	37	3.10	− 0.81	0.87	0	10	4	12	15	se.	Oliver Iron Mining Co.
Wisconsin.																			
Appleton	Outagamie	795	11	66.0	− 1.9	94	25	47	3†	39	6.07	+ 3.72	2.02	0	12	12	10	9	e.	Wm. O. Thiede.
Ashland	Ashland	647	21	60.8	− 6.3	88	11	41	5	32	4.76	+ 1.62	1.89	0	11	10	5	16	e.	Sam Wheeler.
Bayfield	Bayfield	635	3	61.2[b]	.....	80[b]	13	42[b]	5	30[b]	4.34	.....	1.17	0	9	10[b]	0[b]	19[b]	ne.	Frank Kern.
Cecil	Shawano	804	14	61.8	− 5.1	85	24	42	3†	30	5.86	+ 3.59	1.38	0	11	10	15	6	sw.	Louis W. Schmidt.
Cornucopia	Bayfield	.....	0	59.4	.....	80	12	38	15†	33	2.86	.....	0.71	0	11	1	16	14	ne.	Reed Fruit Co.
Crandon	Forest	1,060	17	59.2[a]	− 4.4	84[a]	24	36[a]	4	30[a]	6.95	+ 4.35	1.85	0	16	4	10	17	se.	Frank Shoemaker.
Florence	Florence	1,293	21	59.2[b]	− 4.2	85[b]	24	37[b]	5†	32[b]	6.65	+ 3.45	1.73	0	8	12	4	15	ne.	Fred S. Evans.
Fond du Lac	Fond du Lac	800	26	66.5	− 1.2	92	25	44	27	32	6.56	+ 3.42	1.90	0	13	19	7	5	w.	Edward A. Seeley.
Grand River Locks	Marquette	770	16	66.5	.....	90	25	40	4	32	7.91	+ 3.93	2.75	0	13	10	8	13	sw.	Jerry Parkinson.
Green Bay	Brown	617	26	63.8	− 3.2	86	24	47	4	28	3.92	+ 0.82	1.04	0	14	0	11	20	n.	U. S. Weather Bureau.
High Falls	Marinette	810	0	61.6	.....	89	24	38	4	34	6.81	.....	1.78	0	14	12	4	15	nw.	No. Hydro-Elec. Power Co.
Iron River	Bayfield	1,096	3	59.5	.....	84	12	34	2	40	3.53	.....	0.70	0	13	9	8	14	e.	Winfield E. Tripp.
Kewaunee	Kewaunee	590	3	62.6	.....	86	24	47	3†	34	4.08	.....	0.94	0	8	8	7	16	s.	Eugene V. Kimball.
Manitowoc	Manitowoc	616	61	63.6	− 2.9	86	24	47	16	29	3.77	+ 0.78	1.64	0	10	2	11	18	ne.	Miss Johanna Lups.
Menasha	Winnebago	764	15	.....	.....	.....	.....	.....	.....	.....	5.80	+ 3.49	2.19	0	12	12	8	11	se.	Geo. T. Allanson.
Menomonee Falls	Waukesha	842	3	66.2	.....	89	25	43	4	32	2.76	.....	0.56	0	10	12	13	6	s.	Arthur H. Christman.
Milwaukee	Milwaukee	681	42	67.0	− 1.7	89	24	52	4	28	2.14	− 0.68	0.58	0	10	8	12	11	ne.	U. S. Weather Bureau.
New London	Outagamie	762	16	64.0	− 4.0	90	25	42	16	30	7.60	+ 4.63	1.60	0	15	10	5	16	se.	August H. Pape.
Oconto	Oconto	590	21	63.0[a]	− 4.3	86[a]	24	44[a]	3†	29[a]	9.02	+ 6.52	3.38	0	12	6	13	12	se.	Wm. K. Smith.
Oshkosh	Winnebago	744	23	64.7	− 4.1	92	25	45	4†	31	5.38	+ 2.54	1.60	0	11	14	13	4	ne.	Evan Vincent.
Pine River	Waushara	900	17	65.0	− 3.1	91	25	44	3†	28	6.51	+ 3.53	1.84	0	15	4	17	10	nw.	Geo. H. Carpenter.
Plum Island	Door	588	4	62.3	.....	82	13†	47	16	26	5.45	.....	0.90	0	17	4	12	15	nw.	Geo. C. Robinson.
Plymouth	Sheboygan	843	2	64.4	.....	90	25	47	3†	31	4.61	.....	1.41	0	13	10	7	14	se.	Paul O. Feldrappe.
Port Washington	Ozaukee	713	19	65.3	− 2.5	90	24	47	3	30	3.64	+ 0.60	1.16	0	10	10	8	13	ne.	Richard C. Kann.
Racine	Racine	633	15	68.6	− 2.0	90	17†	48	5	29	1.80	− 1.24	0.44	0	10	14	9	8	ne.	Daniel Davis.
Ripon	Fond du Lac	935	2	66.4	.....	90	25	47	4	29	6.35	.....	1.72	0	11	11	11	9	nw.	Ripon College.
Sheboygan	Sheboygan	831	13	65.9	− 4.1	89	25	50	3†	29	5.73	+ 2.84	1.70	0	8	7	14	10	se.	Louis C. Meyer.
Sturgeon Bay	Door	600	13	61.5	− 4.7	85	24	40	16	28	6.00	.....	2.57	0	11	7	8	16	ne.	Adam N. Dier.
Superior	Douglas	671	3	58.6	.....	78	13†	44	27	27	3.81	.....	0.62	0	15	6	12	13	ne.	Edward B. Banks.
Waupaca	Waupaca	857	17	64.2	− 3.9	93	25	41	3†	34	6.11	+ 2.70	2.25	0	15	5	12	14	se.	James H. Flagg.
Illinois.																			
Chicago	Cook	824	42	71.0	− 0.2	95	31	55	4	27	3.59	+ 0.71	1.83	0	9	8	15	8	sw.	U. S. Weather Bureau.
Evanston	....do	601	0	70.4	.....	96	31	50	4†	29	3.14	.....	1.07	0	10	9	6	16	.....	City of Evanston.
Indiana.																			
Auburn	DeKalb	874	16	67.6	− 2.7	90	31	41	5	37	6.10	+ 2.88	1.93	0	14	9	11	11	sw.	Mrs. Josie B. Kuhlman.
Berne	Adams	849	3	70.3	.....	92	31	45	3†	30	5.78	.....	1.98	0	12	16	8	7	sw.	Henry M. Reusser.
Elkhart	Elkhart	801	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Miles Medical Co.
Fort Wayne	Allen	856	16	69.0	− 2.1	91	31	47	3	31	5.04	+ 1.75	2.22	0	13	11	15	5	sw.	U. S. Weather Bureau.
Hammond	Lake	598	21	70.0	− 1.5	97	31†	45	5	37	1.65	− 0.60	0.60	0	6	12	13	6	.....	Carson W. Whitney.
Howe	Lagrange	886	7	68.4	.....	92	26†	42	2†	40	2.92	.....	0.92	0	10	22	0	9	.....	James E. Zook.
Notre Dame	St. Joseph	712	1	68.0	.....	92	31	45	5	28	6.17	.....	3.10	0	12	13	13	5	sw.	U. S. Weather Bureau.
Whiting	Lake	606	3	71.5	.....	97	31	50	5	33	2.16	.....	0.58	0	9	14	13	4	ne.	D. H. Boyd.
Michigan—Upper Peninsula.																			
Baraga	Baraga	623	10	.....	.....	89	13	.....	.....	.....	2.60	+ 0.28	0.40	0	11	4	0	27	w.	D., S. S. & A. Ry.
Bergland	Ontonagon	1,300	2	59.4	.....	82	13†	34	5	37	5.87	.....	1.57	0	8	7	3	21	nw.	Frank McMonigal.
Blaney	Schoolcraft	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Calumet	Houghton	1,246	24	56.6	− 5.6	75	13	45	15†	20	5.78	+ 2.98	2.50	0	15	8	8	15	e.	E. S. Grierson.
Chatham	Alger	875	11	56.7	− 5.2	80	13†	31	15	43	3.00	− 0.20	0.58	0	11	10	7	14	n.	Upper Peninsula Exp. Sta.
Deer Park	Luce	610	11	57.8	− 3.7	78	6†	44	16	29	3.10	+ 0.40	1.80	0	4	9	0	22	nw.	Mrs. Sarah E. McGaw.
Detour	Chippewa	585	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Linton Melvin.
Eagle Harbor	Keweenaw	622	13	53.6	− 8.7	77	12	44	15	29	4.51	+ 1.69	2.60	0	8	7	13	11	e.	John Nolen.
Escanaba	Delta	612	39	59.3	− 5.2	83	13	42	15	21	7.46	+ 3.85	1.58	0	17	3	9	19	s.	U. S. Weather Bureau.
Ewen	Ontonagon	1,147	11	58.3	− 3.2	80	12†	33	4	34	3.37	+ 1.38	1.30	0	13	10	2	19	nw.	W. B. Hatfield.
Grand Marais	Alger	610	11	57.6	− 4.8	74	12	43	16	22	3.54	+ 1.14	0.60	0	18	9	8	14	nw.	Mrs. Lena Truedell.
Green	Ontonagon	622	1	63.6	.....	79	13	54	9	19	6.24	.....	1.49	0	7	9	5	17	sw.	T. A. Green.
Houghton	Houghton	668	11	57.6	− 6.0	77	12	45	23	24	5.31	+ 2.44	1.73	0	16	3	9	19	e.	U. S. Weather Bureau.
Humboldt	Marquette	1,536	15	58.3	− 1.5	78	12†	31	5	41	.....	.....	.....	0	.....	11	1	19	w.	D., S. S. & A. Ry.
Iron Mountain	Dickinson	1,111	11	61.4	− 2.7	87	24	40	16	33	6.77	+ 4.02	1.48	0	15	8	15	8	sw.	Chapin Mining Co.
Iron River	Iron	1,504	15	59.9	− 2.3	84	24	32	4	39	8.65	+ 4.61	1.35	0	12	13	7	11	ne.	Victor D. Laing.
Ironwood	Gogebic	1,520	9	58.8	.....	81	25	38	29	31	4.87	.....	1.15	0	12	12	5	14	s.	J. V. Brennan.
Ishpeming	Marquette	1,536	12	57.4	− 5.3	78	24	37	16	32	5.85	+ 2.66	1.20	0	15	1	17	13	nw.	Cleveland Cliffs Iron Co.
Isle Royale	Keweenaw	610	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Malone.
Mackinac Island	Mackinac	831	11	57.5	− 8.0	76	12	38	24	35	5.34	+ 1.70	1.31	0	13	3	9	19	e.	Mackinac I. State Park Com.
Maple Ridge	Delta	.....	6	58.6	.....	81	23	37	15	37	4.74	.....	1.20	0	10	6	6	19	n.	Herman Johnson.
Marquette	Marquette	734	41	57.7	− 5.8	80	13	46	30	24	5.83	+ 2.97	2.55	0	19	1	13	17	nw.	U. S. Weather Bureau.
Menominee	Menominee	581	13	62.6	− 4.2	86	24	45	4	28	5.49	+ 3.00	1.69	0	7	17	2	12	se.	C. & N. W. Ry.
Munising	Alger	631	15	58.6	− 2.9	79	21	38	16	31	3.72	+ 1.22	0.74	0	14	6	11	14	n.	Albert Oas.
Newberry	Luce	773	10	58.3	− 3.2	80	12	37	16	34	3.49	+ 1.42	0.88	0	13	2	14	15	nw.	John Brown.
Powers	Menominee	868	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. & N. W. Ry.
St. Ignace	Mackinac	593	22	60.0	− 3.8	78	13	44	15	27	1.76	− 1.04	0.88	0	6	15	10	6	w.	D., S. S. & A. Ry.
Sault Ste. Marie	Chippewa	614	24	58.0	− 2.6	80	13	41	16	28	6.37	+ 3.23	2.85	0	14	2	9	20	nw.	U. S. Weather Bureau.
Seney	Schoolcraft	730	0	57.4	.....	78	12†	28	16	43	3.83	.....	1.25	0	13	4	20	7	w.	Western Land Securities Co.
Thomaston	Gogebic	1,347	15	57.7	− 5.1	82	25	32	27	36	6.05	+ 2.83	1.22	0	10	1	14	16	nw.	D., S. S. & A. Ry.
Victoria	Ontonagon	1,263	2	58.4	.....	80	12	38	29	31	6.26	.....	1.32	0	17	8	12	11	nw.	R. S. Schultz, jr.
Watersmeet	Gogebic	.....	3	58.6	.....	81	24	31	4†	38	7.50	.....	1.58	0	19	2	9	20	nw.	B. N. Grant.
Whitefish Point	Chippewa	610	12	55.8	− 5.6	78	12	41	16	22	2.80	− 0.06	0.52	0	13	7	1	23	nw.	Robert Carlson.

TABLE 1.—*Climatological data for August, 1912. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Michigan—Lower Peninsula.																				
Adrian	Lenawee	770	34	68.5	− 3.4	93	31	45	3	38	2.80	− 0.42	0.59	0	11	6	18	7	sw.	H. E. Hubbard.
Allegan	Allegan	698	21	70.4	+ 0.4	96	25	44	3	33	4.02	+ 1.62	0.94	0	7	1	19	11	nw.	Pere Marquette R. R.
Alma	Gratiot	750	25	64.6	− 2.7	89	13	42	17	39	3.68	+ 1.08	1.60	0	10	8	10	13	ne.	P. M. Smith.
Alpena	Alpena	609	39	61.0	− 2.8	86	13	44	30	30	5.12	+ 1.78	2.12	0	12	4	14	13	nw.	U. S. Weather Bureau.
Ann Arbor	Washtenaw	930	32	67.1	− 2.1	89	26†	45	3	37	3.61	+ 0.98	1.03	0	14	5	14	12	n.	University of Michigan.
Arbela	Tuscola	728	16	64.8	− 4.0	88	25	41	16	40	3.76	+ 0.94	0.82	0	11	0	14	17	ne.	Wm. Atkin.
Battle Creek	Calhoun	822	28	67.7	− 3.0	91	31	44	3	37	5.18	+ 2.17	1.47	0	10	11	11	9	sw.	Elmer E. Sager.
Bay City	Bay	593	16	64.8	− 3.5	90	26	43	27	39	6.88	+ 3.89	1.93	0	14	....	....	....	ne.	Pere Marquette R. R.
Benzonia	Benzie	832	15	62.5	− 2.1	86	25	42	16	30	2.77	− 0.10	0.68	0	11	7	17	7	nw.	Wallace Nuting.
Berlin	St. Clair	....	23	65.4[a]	− 2.8	88[a]	24†	43[a]	30	43[a]	4.25	+ 1.27	0.60	0	18	0[a]	19[a]	11[a]	nw.	R. O. Gould.
Big Rapids	Mecosta	906	16	63.8	− 2.3	87	25	43	4†	34	3.61	+ 0.92	1.41	0	9	1	19	11	w.	Supt. waterworks.
Blissfield	Lenawee	687	0	68.4	.....	92	31	45	5	35	4.37	.....	0.91	0	11	18	10	3	sw.	
Bloomingdale	Van Buren	....	8	66.2	.....	91	31	42	4†	36	7.24	.....	2.97	0	9	16	9	6	sw.	John M. Haven.
Cadillac	Wexford	1,293	3	62.0	.....	87	25	42	4	34	5.19	.....	2.58	0	14	5	11	15	w.	Cadillac W. & L. Co.
Cassopolis	Cass	903	11	69.6	− 0.2	90	19†	50	3†	31	1.33	− 1.37	0.96	0	6	20	0	11	w.	Michigan Central R. R.
Charlevoix	Charlevoix	610	34	62.6	− 3.7	84	13	44	2	26	3.94	+ 2.03	1.04	0	7	10	9	12	sw.	Pere Marquette R. R.
Charlotte	Eaton	....	8	66.0	.....	88	31	44	3†	40	1.82	.....	0.39	0	8	9	13	9	sw.	City of Charlotte.
Cheboygan	Cheboygan	611	22	60.7	− 4.3	85	13	40	16	38	5.58	+ 2.52	1.75	0	10	6	15	10	sw.	E. A. Bouchard.
Clinton	Lenawee	830	22	69.0	− 1.1	94	31	44	3	40	2.63	+ 0.09	0.57	0	9	11	14	6	nw.	David Woodward.
Coldwater	Branch	984	15	68.8[a]	− 1.1	92[a]	31	44[a]	3†	35[a]	2.98	− 0.81	0.88	0	11	16[a]	7[a]	7[a]	sw.	L. S. & M. S. R. R.
Concord	Jackson	....	7	68.4[f]	.....	90[f]	24	43[f]	2†	40[f]	.....	.....	.....	0	....	12[f]	13[f]	0[f]	.....	W. N. Armstrong.
Croton	Newaygo	685	4	65.2	.....	86	25†	40	24	43	3.30	.....	1.00	0	8	7	17	7	sw.	Gr. Rap. Musk. Power Co.
Detroit	Wayne	730	41	67.4	− 2.5	90	31	51	16	28	4.05	+ 1.28	1.28	0	13	8	14	9	n.	U. S. Weather Bureau.
Durand	Shiawassee	799	4	67.0	.....	92	25	44	3	43	2.11	.....	0.82	0	10	11	6	14	se.	H. J. Tobin.
East Tawas	Iosco	590	15	61.6[b]	− 4.2	81[d]	24	42	3	36[d]	4.00	+ 1.70	1.50	0	12	14	12	5	sw.	Detroit & Mackinaw Ry.
Eloise	Wayne	640	15	67.6	− 2.6	91	31	47	3†	37	4.31	+ 1.70	0.72	0	15	7	11	13	e.	John Gilmore.
Flint	Genesee	730	23	64.4	− 3.1	87[a]	25†	41	16	38[a]	2.98	+ 0.41	0.55	0	14	11	4	16	w.	William L. Fisher.
Frankfort	Benzie	589	8	62.4	.....	80	25†	47	16	18	2.91	.....	1.18	0	7	8	0	23	n.	Geo. Morency.
Ganges	Allegan	665	3	65.9	.....	86	31	45	3	25	3.72	.....	0.91	0	9	17	4	10	sw.	H. H. Hutchins.
Gaylord	Otsego	1,367	12	58.4	− 4.3	85	25	30	4	48	5.62	+ 2.30	1.27	0	12	0	9	22	sw.	Michigan Central R. R.
Gladwin	Gladwin	794	16	65.0	− 1.1	90	25	40	3	40	2.55	− 0.06	1.40	0	4	16	7	8	sw.	Geo. R. Smith.
Grand Haven	Ottawa	628	31	64.4	− 3.4	84	31	47	5	26	2.43	− 0.15	0.90	0	11	10	14	7	s.	U. S. Weather Bureau.
Grand Rapids	Kent	707	23	66.9	− 3.1	90	31	46	3	32	3.16	+ 0.57	1.31	0	10	7	12	12	n.	Do.
Grape	Monroe	625	22	68.4	− 1.7	91	31	45	3	34	4.23	+ 1.61	1.29	0	14	12	11	8	sw.	Joseph W. Morris.
Grass Lake	Jackson	989	6	68.3	.....	90	31	47	4†	30	4.38	.....	1.00	0	12	17	2	12	sw.	Menzo Conklin.
Grayling	Crawford	1,147	22	60.2	− 4.0	85	25	37	16	40	4.36	+ 1.51	1.00	0	13	5	12	14	w.	S. N. Insley.
Greenville	Montcalm	802	0	67.0[i]	.....	90[i]	25†	46[i]	27	30[i]	.....	.....	.....	0	....	10[i]	9[i]	3[i]	.....	Michigan Pickle Co.
Harbor Beach	Huron	635	24	60.6	− 5.8	90	26	37	6	42	1.55	− 1.07	0.50	0	8	15	14	2	n.	Pere Marquette R. R.
Harrison	Clare	1,159	19	63.2	− 2.4	88	25	42	16	40	2.60	+ 0.45	0.82	0	6	3	10	18	w.	Do.
Harrisville	Alcona	616	28	60.8	− 4.5	86	25	40	30	26	6.02	+ 2.50	1.70	0	14	6	8	17	se.	D. W. Mitchell.
Hart	Oceana	698	20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Pere Marquette R. R.
Hayes	Huron	620	22	64.3	− 2.2	87	25	41	15	39	2.85	+ 0.19	0.83	0	12	1	26	4	nw.	C. F. Leipprandt.
Highland	Oakland	1,006	20	....	....	....	....	....	....	....	3.54	+ 0.76	1.51	0	9	....	....	....	....	A. D. De Garmo.
Hillsdale	Hillsdale	1,150	15	67.0	− 1.9	90	31	42	3	37	3.95	+ 1.42	0.65	0	10	15	12	4	sw.	C. L. Herron.
Holland	Ottawa	610	6	66.6	.....	89	31	42	5	30	2.78	.....	0.62	0	11	12	10	9	sw.	City of Holland.
Howell	Livingston	924	20	66.4	− 1.5	89	31	45	3†	39	2.29	− 0.33	0.85	0	9	7	10	14	sw.	Frank Sharp.
Ivan	Kalkaska	....	23	60.9	− 4.3	87	25	39	16	34	5.20	+ 2.30	1.54	0	19	2	22	7	nw.	O. L. Giddings.
Jackson	Jackson	927	15	67.6	− 3.2	90	25†	44	3†	39	5.01	+ 2.69	2.25	0	12	8	16	7	w.	City of Jackson.
Jeddo	St. Clair	667	23	64.5	− 3.4	87	12†	44	16†	37	4.74	+ 1.97	1.33	0	13	7	13	11	sw.	William Bice.
Kalamazoo	Kalamazoo	955	36	67.2	− 2.7	92	25	42	3†	33	7.97	+ 5.25	2.75	0	11	12	11	8	sw.	Kalamazoo Asylum.
Lansing (Agr. College)	Ingham	820	48	65.7	− 2.7	89	31	46	3	38	2.19	− 0.44	0.76	0	14	9		15	nw.	U. S. Weather Bureau.
Lansing (Capitol)	....do	881	25	66.0	− 2.5	90	24†	46	2	37	2.25	− 0.60	0.77	0	15	6	8	17	sw.	State Board of Health.
Lapeer	Lapeer	827	13	....	....	....	....	....	....	....	....	....	....	0	....	....	....	....	....	Michigan Home.
Ludington	Mason	586	14	62.0	− 5.6	79	12†	44	15	31	4.32	+ 2.11	1.42	0	9	2	26	3	sw.	Pere Marquette R. R.
Luther	Lake	1,028	2	62.1	.....	89	25	35	3†	41	3.17	.....	1.12	0	16	4	13	14	nw.	John W. Nicholson.
Mackinaw	Cheboygan	592	21	58.8	− 5.8	80	24	40	3†	32	1.90	− 1.38	1.00	0	7	9	21	1	n.	G. R. & I. Ry.
Mancelona	Antrim	1,121	16	57.9	− 6.6	85	25	35	24†	43	4.03	+ 1.80	1.30	0	12	14	3	14	w.	Do.
Manistee	Manistee	600	15	63.8[c]	− 1.2	86[c]	26	44[c]	3	30[c]	.....	.....	.....	0	....	7[c]	7[c]	14[c]	nw.	Pere Marquette R. R.
Marshall	Calhoun	896	0	64.0[c]	.....	89[c]	24†	45[c]	5†	37[c]	.....	.....	.....	0	....	....	....	....	....	E. B. Stuart.
Midland	Midland	604	13	67.0	− 1.9	92	25	45	4†	31	2.38	+ 0.55	0.80	0	6	0	7	24	se.	Pere Marquette R. R.
Morenci	Lenawee	811	5	67.6	.....	90	25†	43	5	35	5.27	.....	1.10	0	12	7	13	11	sw.	George J. Tripp.
Mount Clemens	Macomb	615	12	67.2	− 2.5	92	31	45	16†	37	4.80	+ 2.66	1.00	0	12	5	7	19	s.	Waterworks.
Mount Pleasant	Isabella	826	13	65.0	− 2.2	89	25	44	3†	35	2.93	+ 0.79	0.92	0	6	8[a]	15[a]	7[a]	w.	Pere Marquette R. R.
Muskegon	Muskegon	587	16	65.8	− 2.7	85	31	44	5	23	2.36	+ 0.39	0.90	0	10	19	10	2	s.	G. R. & I. Ry.
Old Mission	Grand Traverse	858	18	62.0	− 5.1	82	13	47	16†	32	5.81	+ 2.77	1.16	0	17	2	19	10	n.	E. O. Ladd.
Olivet	Eaton	934	22	65.6	− 2.4	87	31	44	3	31	3.07	− 0.26	0.58	0	11	15	7	9	w.	G. A. Knapp.
Omer	Arenac	616	13	65.0	+ 0.2	90[a]	24†	39	28†	47[a]	2.58	+ 0.46	1.35	0	6	14	1	16	w.	D. & M. Ry.
Onaway	Presque Isle	826	9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Do.
Owosso	Shiawassee	731	15	68.0	− 2.0	91	25	45	3	39	2.53	+ 0.22	0.62	0	15	2	28	1	nw.	Owosso Sugar Co.
Petoskey	Emmet	660	22	60.3	− 4.8	84	13	40	28	32	5.41	+ 2.56	2.10	0	13	7	5	19	w.	G. R. & I. Ry.
Plymouth	Wayne	725	15	67.8	− 2.3	93	31	40	3	45	2.02	+ 0.07	0.63	0	5	21	4	6	e.	Pere Marquette Ry.
Pontiac	Oakland	935	12	65.4	− 3.1	87	31	42	30	33	4.72	+ 2.17	1.72	0	12	5	17	9	nw.	Fred W. Shaw.
Port Austin	Huron	618	15	63.6	− 2.7	87	13	37	30	35	3.91	+ 1.83	1.80	0	12	12	9	10	s.	Pere Marquette R. R.
Port Huron	St. Clair	639	37	65.0	− 2.3	88	26	48	16	31	3.67	+ 1.04	0.67	0	14	4	16	11	s.	U. S. Weather Bureau.
Reed City	Osceola	1,033	15	64.6[a]	− 2.5	90[a]	25	38[a]	4	39[a]	4.59	+ 2.55	1.21	0	17	8[b]	7[b]	14[b]	n.	Pere Marquette R. R.
Roscommon	Roscommon	1,141	11	60.0	− 3.1	86	25	33	16	43	3.23	+ 0.84	0.85	0	14	5	16	9	nw.	Marcus Schaaf.
Saginaw	Saginaw	601	10	67.2	− 1.4	91	25	46	16	39	2.90	+ 0.04	0.75	0	13	7	20	4	s.	Postmaster.
Saginaw, West Side	....do	601	17	66.0	− 3.4	90	25	46	3†	39	2.73	− 0.16	0.95	0	14	11	13	7	nw.	Robert B. Hudson.
St. James	Charlevoix	681	6	59.8	.....	78	13	39	2	25	3.74	.....	0.86	0	11	8	6	17	w.	James Malone.
St. Joseph	Barrien	593	25	67.0	− 3.5	87	31	46	8	34	6.12	+ 3.93	1.25	0	11	9	9	13	nw.	City of St. Joseph.
Sandusky	Sanilac	790	3	63.5	.....	86	13	35	30	45	2.97	.....	0.83	0	12	4	24	3	nw.	Pere Marquette R. R.
Saranac	Ionia	639	17	66.2	− 2.1	91	25†	41	27	39	3.77	− 0.64	1.33	0	11	6	1	24	sw.	John Wallington.
South Haven	Van Buren	585	16	66.2	− 1.5	88	31	44	5	28	8.00	+ 5.11	2.00	0	9	18	13	0	sw.	Mrs. M. E. De Diemar.
Stanton	Montcalm	880	18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	City of Stanton.
Thornville	Lapeer	975	35	63.4	− 6.1	88	13	42	16	40	6.21	+ 2.98	1.30	0	13	3	15	13	nw.	J. S. Caulkins.
Traverse City	Grand Traverse	588	15	63.2	− 4.1	86	13	45	16	32	2.84	+ 0.33	1.20	0	6	6	4	21	nw.	G. R. & I. Ry.
Vassar	Tuscola	641	11	65.8[b]	− 2.9	89[b]	25†	41[b]	4	41[b]	4.76	+ 2.27	1.42	0	8	5[b]	18[b]	6[b]	sw.	Pere Marquette Ry.
Wasepi	St. Joseph	842	15	67.3	− 1.6	89	31	44	3†	32	4.28	+ 0.93	1.20	0	10	16	0	15	sw.	Charles A. Palmer.
West Branch	Ogemaw	973	7	....	....	....	....	....	....	....	3.28	.....	1.00	0	7	4	6	21	s.	Michigan Central R. R.
Woodlawn (p.o. Vienna)	Montmorenci	....	14	59.0	− 6.6	83	13†	34	16	37	5.60	+ 2.42	1.42	0	11	7	8	16	nw.	T. C. Mathews.
Ypsilanti	Washtenaw	736	27	66.8	− 2.0	90	31	46	3	35	4.68	+ 2.16	0.92	0	14	2	25	4	nw.	Orin J. Bemiss.
Ohio.																				
Akron	Summit	1,081	25	67.7[d]	− 2.5	88[f]	17†	47[b]	4†	36	2.71	− 0.78	0.74	0	15	4[b]	12[b]	13[b]	sw.	Prof. C. R. Olin.
Antwerp	Paulding	733	....	69.6	.....	93	31	48	3	33	5.74	.....	2.30	0	10	13	0	18	sw.	North G. Osborn.
Benton Ridge	Hancock	800	19	69.1	− 2.5	88	25†	45	4†	31	3.18	+ 0.49	0.85	0	11	12	10	9	sw.	J. W. Powell.
Bowling Green	Wood	670	31	68.5	− 2.0	90	31	44	3†	34	2.94	+ 0.13	1.30	0	12	11	13	7	sw.	G. C. Houskeeper.

TABLE 1.—*Climatological data for August, 1912. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Ohio*—Continued.**																				
Bucyrus	Crawford	1,000	18	69.1	− 1.9	92	25†	42	5	42	2.67	− 0.11	1.10	0	12	10	3	18	sw.	James R. Hopley.
Cleveland (1)	Cuyahoga	762	41	67.6	− 2.8	87	25	52	28	25	4.54	+ 1.39	0.80	0	16	1	14	16	se.	U. S. Weather Bureau.
Cleveland (2)	....do	754	15	68.3	− 2.1	89	25	51	28	26	3.25	+ 0.49	0.94	0	13	6	14	11	nw.	Rev. F. L. Odenbach, S. J.
Conneaut	Ashtabula	675	2	67.0	.....	89	25	46	5	28	4.21	.....	1.00	0	12	7	7	17	sw.	E. L. Ransom.
Findlay	Hancock	776	23	69.0	− 2.9	92	31	43	5	36	3.75	+ 1.04	0.92	0	13	19	4	8	sw.	Dr. E. A. Moser.
Fremont	Sandusky	628	10	69.6	− 1.7	91	31	47	5	32	3.83	+ 0.14	1.67	0	13	16	6	9	sw.	E. Stanley Thomas.
Hedges	Paulding	725	18	69.8	− 1.0	93	31	43	5	35	2.57	− 0.28	1.15	0	9	15	11	5	nw.	Charles Stutzman.
Hillhouse	Lake	997	19	65.7	− 2.5	87	25†	45	28	33	5.49	+ 2.48	1.35	0	14	8	20	3	sw.	J. W. Doncaster.
Hiram	Portage	1,260	32	66.5	− 2.4	89	20	46	4†	31	5.69	+ 2.46	1.63	0	13	5	24	2	sw.	Prof. G. H. Colton.
Hudson	Summit	1,123	51	68.0	− 1.7	89	13	45	4†	42	5.75	+ 2.19	1.08	0	13	9	17	5	s.	Dr. W. I. Chamberlain.
Lima	Allen	875	13	68.8[a]	− 2.7	89[b]	31	45	3†	30	4.62	+ 1.62	1.77	0	9	13	5	13	w.	Miss Ollie De Long.
Medina	Medina	944	24	67.2	− 3.5	88	18	43	4	31[b]	3.56	+ 0.40	0.63	0	13	16	7	8	s.	F. W. Clark.
Montpelier	Williams	880	20	69.3	− 0.7	94	25†	44	3†	35	3.05	+ 0.20	0.87	0	11	14	9	8	w.	G. L. Laser.
Napoleon	Henry	680	25	67.5	− 3.6	89	26†	47	3	31	3.40	+ 0.77	0.93	0	10	11	11	9	w.	A. D. Senter.
New Bremen	Auglaize	1,038	19	69.4	− 3.0	89	31	42	3	30	2.84	+ 0.16	0.90	0	12	7	16	8	nw.	Miss Lillian Grothauus.
North Royalton	Cuyahoga	1,000	19	67.0	− 3.4	87	31	45	4	30	4.10	+ 0.49	0.63	0	13	10	18	3	nw.	W. S. Edgerton.
Norwalk	Huron	719	26	68.9	− 1.6	92	31	46	30	39	4.24	+ 1.13	1.13	0	13	8	14	9	w.	Giles R. Gregory.
Oberlin	Lorain	855	37	68.3	− 1.1	89	31	46	29	29	3.22	+ 0.45	0.61	0	15	6	18	7	s.	Prof. F. F. Jewett.
Ottawa	Putnam	720	19	68.8	− 3.3	90	31	45	3†	30	4.05	+ 1.28	2.15	0	12	3	11	17	sw.	Prof. J. T. Maidlow.
Sandusky	Erie	629	35	69.0	− 2.5	89	25	53	28	28	3.57	+ 0.20	1.09	0	13	5	16	10	sw.	U. S. Weather Bureau.
Tiffin	Seneca	775	30	69.5	− 1.4	92	25	49	5	30	1.90	− 0.74	0.30	0	12	15	10	6	sw.	Prof. T. H. Sonnedecker.
Toledo	Lucas	769	41	68.8	− 2.1	91	31	49	3	29	3.48	+ 0.78	0.84	0	14	11	13	7	sw.	U. S. Weather Bureau.
Upper Sandusky	Wyandot	854	29	68.0	− 3.0	88	25†	44	5	28	2.64	− 0.04	1.03	0	8	10	18	3	sw.	Robert E. Tracht.
Vickery	Sandusky	588	19	69.4	− 1.6	94	31	45	5	35	3.84	+ 1.06	1.31	0	13	5	15	11	sw.	John W. Barr.
Wapakoneta	Auglaize	898	....	70.9	.....	90	25†	48	3†	27	2.99	.....	1.14	0	12	8	18	5	s.	Dr. Wm. Kayser.
Wauseon	Fulton	780	40	68.2	− 2.1	92	25	43	5	36	4.49	+ 1.78	1.80	0	15	7	17	7	s.	Thomas Mikesell.
Wickliffe	Lake	740	....	.....	.....	....	....	....	....	....	7.13	.....	1.67	0	14	14	5	12	w.	C. M. Richardson.
Pennsylvania.																				
Erie	Erie	658	39	66.2	− 3.7	83	26	51	30	23	5.90	+ 2.64	1.19	0	16	1	13	17	s.	U. S. Weather Bureau.
New York.																				
Adams Center	Jefferson	540	21	65.3	− 3.5	85	13	38	10	30	4.25	+ 1.47	0.98	0	20	5	17	9	w.	A. E. Cooley.
Angelica	Allegany	1,340	29	61.6	− 3.3	84	25	37	17	34	4.93	+ 0.86	1.35	0	18	1	10	20	nw.	Charles P. Arnold.
Appleton	Niagara	270	21	64.8	− 2.6	83	14†	44	17	28	3.52	+ 0.85	0.95	0	17	8	14	9	sw.	H. A. Van Wagoner.
Auburn	Cayuga	715	43	64.6	− 4.2	85	14†	42	31	24	3.89	+ 0.47	0.82	0	13	17	12	2	n.	A. H. Underwood.
Avon	Livingston	585	17	66.0	− 1.5	85	8†	41	30	27	2.68	− 0.46	0.67	0	10	5	18	8	.....	W. G. Markham.
Blue Mountain Lake	Hamilton	1,750	12	.....	.....	....	....	....	....	....	5.41	+ 1.76	0.67	0	14	7	12	12	w.	B. F. Merwin.
Brockport	Monroe	537	16	65.3	− 3.4	85	13	40	30	31	2.58	− 0.01	0.46	0	21	3	20	8	s.	W. H. Lennon.
Buffalo	Erie	767	61	64.8	− 4.0	87	13	46	30	26	4.00	+ 1.01	1.65	0	16	1	15	15	sw.	U. S. Weather Bureau.
Canton	St. Lawrence	448	18	61.8	− 4.8	82	11	38	1	30	4.44	+ 1.75	1.07	0	16	2	11	18	sw.	Do.
Cape Vincent	Jefferson	246	7	64.8	.....	82	14	47	30†	28	4.14	.....	0.97	0	14	9	9	13	w.	J. Harry Grapotte.
Chazy	Clinton	151	12	63.6	− 2.8	84	13	47	1	28	4.69	+ 1.89	1.30	0	11	5	15	11	s.	W. R. North.
Dannemora	....do	1,490	7	61.5	.....	79	13	42	30	22	4.58	.....	1.26	0	16	1	8	22	w.	Dr. W. N. Thayer.
Elba	Genesee	500	13	62.8	− 2.3	84	13	39	30	28	3.79	+ 1.08	0.76	0	13	12	6	13	sw.	Joseph S. Wilford.
Fayetteville	Onondaga	530	11	65.4	− 3.2	90	13	38	30	30	4.31	+ 0.61	1.32	0	12	8	18	5	nw.	Dana H. Wells.
Gabriels	Franklin	1,729	10	58.0	.....	81	13	31	16†	38	3.45	.....	0.80	0	15	4	15	12	w.	Gabriels Sanitarium.
Harkness	Clinton	622	10	62.1	− 4.5	84	13	42	16	25	3.49	+ 1.27	1.18	0	18	16	7	8	w.	J. W. Harkness.
Hemlock Lake	Livingston	900	14	64.9	− 3.6	84	13	41	30	26	2.72	− 0.07	0.58	0	15	8	13	10	s.	Bernard P. McGrady.
Hunt	....do	1,321	13	63.9	− 3.6	85	14	40	30	28	3.50	+ 0.72	0.73	0	12	3	18	10	nw.	W. S. Barager.
Ithaca	Tompkins	928	34	64.7	− 3.5	86	13	41	31	32	3.54	− 0.30	1.12	0	18	5	20	6	nw.	U. S. Weather Bureau.
Keene Valley	Essex	1,000	14	61.2	− 3.0	86	13	36	31	39	3.86	+ 0.23	0.83	0	21	4	11	16	nw.	E. R. Wells.
King Ferry	Cayuga	.....	12	.....	.....	....	....	....	....	....	3.10	+ 0.30	0.80	0	17	7	12	12	nw.	Lucius A. Goodyear.
Lake George	Warren	350	15	64.2	− 2.5	89	14	39	31	34	4.36	+ 0.24	1.67	0	12	5	19	7	sw.	Charles Forsell.
Lake Placid Club	Essex	1,864	4	51.4	.....	76	13	30	31	30	4.19	.....	0.65	0	20	3	18	10	nw.	Henry Van Hoevenberg.
Lauterbrunnen	Wyoming	.....	0	64.1	.....	88	13	41	2†	33	3.11	.....	0.54	0	13	0	23	8	nw.	James O. Howard.
Lockport	Niagara	520	25	65.4	− 3.0	86	13	43	30	28	3.78	+ 1.26	0.74	0	13	10	14	7	sw.	Robert N. Clark.
Lowville	Lewis	900	45	63.4	− 1.5	87	13	39	17	38	3.13	− 0.09	1.08	0	15	9	21	1	sw.	Prof. W. F. H. Breeze.
Moira	Franklin	200	12	61.4	− 4.9	81	13	38	30	29	3.59	+ 0.34	0.69	0	14	6	14	11	w.	C. E. McBride.
Nehasane	Hamilton	1,750	4	57.6	.....	80	13	31	17	36	3.60	.....	1.00	0	21	4	23	4	w.	L. W. Brown.
North Lake	Herkimer	1,822	11	59.6	.....	80	13	32	31	29	3.30	.....	0.92	0	12	13	11	7	sw.	John F. Redmond.
Ogdensburg	St. Lawrence	175	28	64.5	− 3.0	83	14	43	30	26	4.58	+ 1.54	1.22	0	10	4	23	4	s.	State Hospital.
Old Forge	Herkimer	1,733	4	58.4	.....	80	13	31	30	32	3.75	.....	0.66	0	19	5	11	15	w.	Mrs. S. W. Nelson.
Oswego	Oswego	335	42	64.2	− 4.6	81	11	46	31	23	2.81	+ 0.12	0.80	0	11	5	13	13	s.	U. S. Weather Bureau.
Otto	Cattaraugus	1,410	8	62.6	.....	84	12	43	18	32	4.25	.....	0.54	0	21	9	13	9	.....	William J. Winke.
Palermo	Oswego	460	53	.....	.....	....	....	....	....	....	2.36	− 0.49	0.90	0	13	16	10	5	sw.	E. B. Bartlett.
Perry City	Schuyler	1,038	32	61.2	− 4.9	89	11	34	6†	38	3.00	− 0.61	0.57	0	16	2	14	15	nw.	W. H. Jeffers.
Philadelphia	Jefferson	485	6	63.6	.....	82	11†	37	30	28	4.57	.....	1.57	0	15	2	22	7	w.	E. D. Babcock.
Potsdam	St. Lawrence	300	36	63.4	− 3.0	84	12†	40	16†	29	4.88	+ 1.48	1.23	0	15	.....	.....	.....	.....	A. E. Sutherland.
Prospect Home	Wyoming	.....	0	.....	.....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Dunning.
Raquette Lake	Hamilton	1,776	4	58.7	.....	80	13	36	16†	30	3.44	.....	0.58	0	18	4	11	16	w.	U. S. Weather Bureau.
Rochester	Monroe	523	83	65.2	− 3.1	84	14	47	17	25	3.13	+ 0.17	0.97	0	16	4	14	13	w.	Do.
Romulus	Seneca	719	20	.....	.....	84	14	43	30†	0	.....	.....	.....	0	.....	.....	.....	.....	.....	John H. Coryell.
Shortsville	Ontario	740	13	64.2	− 3.8	82	13†	43	30	26	2.63	− 0.16	0.65	0	13	8	13	10	nw.	C. H. Latting.
Skaneateles	Onondaga	.....	17	.....	.....	....	....	....	....	....	3.84	+ 0.41	0.56	0	15	.....	.....	.....	.....	Edward Conron.
Syracuse	....do	597	10	64.6	− 4.0	85	13	45	30	22	2.97	− 0.36	0.69	0	12	4	17	10	s.	U. S. Weather Bureau.
Tupper Lake	Franklin	1,522	12	58.3	− 3.0	77	13†	35	31	26	4.67	+ 0.86	1.16	0	19	6	11	14	w.	Rev. A. W. Maddox.
Volusia	Chautauqua	1,167	13	63.4	− 3.3	80	13†	43	30	28	3.64	+ 0.99	0.75	0	15	0	23	8	s.	Benjamin Breads.
Wanakena	St. Lawrence	1,620	2	.....	.....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Otto Hamele.
Watertown	Jefferson	540	20	64.7	− 3.4	84	11	37	30	35	3.10	− 0.39	0.75	0	16	8	22	1	.....	H. P. Dunlap.
Wedgwood	Schuyler	1,430	23	63.8	− 4.0	87	25	42	30†	27	5.25	+ 0.88	0.91	0	18	11	16	4	sw.	O. F. Corwin.
Westfield	Chautauqua	837	16	65.4	− 3.1	83	25	45	30	27	4.07	+ 1.18	0.63	0	16	3	18	10	.....	John R. Rogers.
York	Livingston	760	0	64.8	.....	87	13	41	30	32	2.77	.....	0.84	0	15	6	10	15	sw.	M. N. Stewart.
Youngstown	Niagara	.....	10	.....	.....	....	....	....	....	....	4.37	.....	0.84	0	11	0	31	0	n.	B. V. Brookins.
Vermont.																				
Burlington	Chittenden	404	4	62.3	− 3.8	82	11	44	17	27	2.55	− 1.46	0.84	.....	15	3	11	17	s.	U. S. Weather Bureau.
Cornwall	Addison	517	18	.....	.....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Lane.
Enosburg Falls	Franklin	601	20	61.6	− 3.0	84	11	39	17	36	4.89	+ 0.75	1.44	.....	18	7	13	11	nw.	L. H. Pomeroy.
Hyde Park	Lamoille	576	0	61.4	.....	86	11	38	28†	35	4.22	.....	0.80	.....	19	5	14	12	nw.	A. V. Wiswell.
Northfield	Washington	876	25	59.6	− 3.3	83	11	36	31	33	3.46	− 0.47	0.69	.....	17	3	9	19	s.	U. S. Weather Bureau.
Wells	Rutland	750	20	62.5	− 4.0	80	13†	39	30	25	4.49	− 0.64	1.55	.....	12	4	22	5	s.	E. R. Pember.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 4, Lake region.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Minnesota.																																	
Cloquet	L. Superior					.30	.68	T.	T.	.65	T.							.31			T.		T.		T.				.38		.70	.22	3.24
Duluth	do	T.		T.		.16	.16	.10	.03	1.02	T.						.02	.38	T.	.01	T.	.01	T.	.01	.03	T.		.16	.31	T.	.67	.18	3.25
Floodwood	do					.20	1.00			.70								.14									.28			.22	.51	.07	3.12
Stephens Mine	do	T.				.06	.08	.10		.09	.20			.26				.24					T.	T.	.90			T.	.85		.08		2.86
Two Harbors	do	T.				.05	.05			.80								.45	T.										.48	T.	.40	.22	2.45
Virginia	do					.15		.33		.15				.36				.33			.18		.06		.51			T.	.87		.16		3.10
Wisconsin.																																	
Appleton	Fox	.13	.08	T.			.10	T.		1.57	.08							.22	.68				.08		.02				2.02		.65	.44	6.07
Ashland	L. Superior									1.89	1.27	.06						.54	T.	.08	.03		.01		.02				.31		.33	.22	4.76
Bayfield	do	T.							.16	.94	1.17		.05					.46			.08			.04					1.05		.39		4.34
Cecil	Fox	.18		T.				.21	.14	.94	1.38					.20		1.19	.30										.78		.49	.05	5.86
Cornucopia	L. Superior	T.	.03			T.	.04		T.	.43	.71			T.	T.			.31		T.	.08		T.	.21	.03		T.	.49		.31	.22	2.86
Crandon	Fox	T.	.07				.74	.38	T.	1.85	1.01	.14						1.19	.06		.03	.16	.04	.05	T.	.08			.65		.30	.20	6.95
Florence	Menominee	T.					1.38				1.73							1.12	.02		.43		T.		.72				.79			.46	6.65
Fond du Lac	Fox	.16	.50	T.			.05		.65	.22	.30		T.					.01	.09	1.12			.12						1.90		1.42	.02	6.56
Grand River Locks	do	.30					.10		.30	.12	.60		.08	.08					2.75	.18			.08						.32		2.00	1.00	7.91
Green Bay	L. Michigan	.05		T.			.08		.33	.53		.04			.09		.01	.70	.51	T.	T.		.03		.01			.02	1.02		.50		3.92
High Falls	do	.01	T.	T.			.60	.61	.28	1.78	.75	.10						1.34	.04	.05	T.	T.				.11			.58		.18	.38	6.81
Iron River	L. Superior	.05	T.			.15	.20	.05	T.	.40	.68				T.			.70	T.	.06	.04		.06		T.			T.	.48	T.	.42	.24	3.53
Kewaunee	L. Michigan		.12				.20			.90								.68	.48					.22					.94		.54		4.08
Manitowoc	do	.03					.12			.84		T.	T.				.04		.15	T.			.10	.07					1.64		.48	.30	3.77
Menasha	Fox	.15					.19	.03	.08	.94	.74							.16	.07	.04			.05		T.				2.19		1.16		5.80
Menomonee Falls	L. Michigan	.56					T.	.23	.32	.13	.16	T.						T.	.25	.22	T.		.04						.40		.45		2.76
Milwaukee	do	.10				T.	T.	.13	.32	.15	.11		T.					T.	.25	.17	T.		.01				T.		.32		.58		2.14
New London	Fox	.05					.06	.30	1.05	1.58	.42					.08		.60	.50	.30			.08		.08				1.60		.75	.15	7.60
Oconto	L. Michigan	.12							.12	2.38					.02		.63	1.17	.14								.66	.11	.11	.18	3.38	9.02
Oshkosh	Fox	.16					.06		.02	1.60	.08							.06		.28			.09		T.		T.		1.22		1.20	.61	5.38
Pine River	do	.04					.02	.50	1.84	.02	.53					.02		.22	.18	.11			.06		.02		T.		1.71		.95	.29	6.51
Plum Island	L. Michigan	.10	.02				.32	.80	.30	.72		.03	.03					.90	.12		.18		.05		.11			.10	.70		.10	.87	5.45
Plymouth	do	.13	.02	T.			T.	.10	.23	.68	T.		T.					.02	.20	.52		T.	.09						1.18	.01	1.41	.02	4.61
Port Washington	do	.28						.16	.10	1.16	.05								.10	.22										.90	.05	.62		3.64
Racine	do	.14					T.	.24	.12	.16	.12	.03							.05	.44			T.						.43		.07		1.80
Ripon	Fox	.92					.07		.55	.35	.32		T.						.20	.47			.15						1.10		1.72	.50	6.35
Sheboygan	L. Michigan	T.					T.	T.	T.	1.28	.04		T.					.15	.20	1.70	T.		.10						1.28		.98	T.	5.73
Sturgeon Bay	do	.04	.45				.11			2.57	.07	T.						1.33	.44	.09			T.						.60		.19	.11	6.00
Superior ‡	L. Superior	.06					.47	.30	T.	.62	.56	.01						.56	.02		T.	.02	.02		.01				.40	.09	.50	.17	3.81
Waupaca	Fox	.15					.15	.17	.82	.07	.63	.01						.36	.29	.09			.04		.08				2.25		.88	.12	6.11
Illinois.																																	
Chicago	L. Michigan	T.				T.	T.	.04	.72	1.30	.80	.02		.12					.07	.38	.14		T.				T.		T.				3.59
Evanston	do	T.	.04	T.				.15	.55	1.07	.22	.16							.07	.60	.13					T.			.15		T.		3.14
Highland Park	do	.13				.02		.15	2.63	.35	.37	.07							.07	.02	1.65		T.						.23				5.69
Indiana.																																	
Auburn ‡	Maumee								1.93	.05	.19	.71		.05	.03			.15	1.06	.14	.06	.05	.51	.40					.77		T.	6.10
Berne	do	T.	.03					.54	.07	1.60	.07	.52		.21					1.98		.06	.08	.39				T.		.23				5.78
Elkhart	St. Joseph																																
Fort Wayne	Maumee							.32	.14	.12	.74	.22		.05	.18			1.10	1.18	T.	.07	.38	.28	T.		T.			.26		T.	T.	5.04
Hammond	L. Michigan							.40	.18		.60								.09	.28											.10		1.65
Howe ‡	St. Joseph										.92	.62		.08					.20	.10	.10			.20					.15	.50		.05	2.92
Notre Dame ‡	do							.04	.44	1.24	.65	.07		.01				1.55	1.55	.06	.11		.17						.28				6.17
Whiting	L. Michigan							.32	.58	.20	.13	.03		T.					.48	.37	.03								T.	.02	T.		2.16
Michigan—Upper Peninsula.																																	
Baraga	L. Superior				.20		.20	.30	.10	.40	.20						.40	.20	.10								.20				.30		2.60
Bergland	Ontonagon	T.	T.				.51	T.	T.	1.26	1.57	T.						.52	T.		T.		T.	.11	.57		T.		.73	T.	.60	T.	5.87
Blaney	Manistique																																
Calumet	L. Superior	.08					.27	.19		.33	2.50							.65	.13		.12		.05	.05	.38		.07		.42		.46	.08	5.78
Chatham	do						.35	.10		.50	.40	.01		.01				.58				.15			.45				.35		.10		3.00
Deer Park	do		T.					T.		1.80	T.			T.				.30							.60				T.		.40		3.10
Detour	St. Marys																																
Eagle Harbor	L. Superior		.18					.18			2.60	.16		T.					.40		T.				.70				.14			.15	4.51
Escanaba	L. Michigan	.16	.03				.44	1.14	.03	1.34	.01	.04		.01				.76	.02	T.	.36		T.	T.	1.58		T.	.41	.27	T.	.05	.81	7.46
Ewen	Ontonagon	.05	.01					.02	.05	1.30	.10							.39			T.		T.	.03	.53	.03	T.	T.	.56		.20	.10	3.37
Grand Marais	L. Superior			.14				.12	.05	.20	.60	.20	.05	.13				.60	.05	.10		.10	.10	.20	.40	T.	T.		.10		.30	.10	3.54
Green	do						.71			.90	1.49	.21						.59													1.18	1.16	6.24
Houghton	do	.04					.40		.14	.53	1.54			T.				.56	.03		T.	.02	.02	.10	.75		.01	.26	.04		.55	.32	5.31
Humboldt	Escanaba																																
Iron Mountain	Menominee	.12	.18				.90	.44	.04	.48	1.00	T.						1.48	.03		.24	.10	T.	.05	.65				.81		.25		6.77
Iron River	do	T.	T.				1.10	.25	.10	1.35	1.15							1.15	.40		.30				.85		T.		1.35		.45	.20	8.65
Ironwood	L. Superior					.04	.39	T.	.01	1.15	.82	.21						.45	T.	T.			.05	T.	.35			T.	.82		.43	.15	4.87
Ishpeming	Escanaba	.10	.15				.80	.10	1.20	.90	.60	.20		T.				.40			T.	.05	T.	.20	.40		T.		.50		.20	.05	5.85
Isle Royale	L. Superior																																
Mackinac Island	Lake Huron	T.	.09				.12	.27	1.04	1.11	.29			T.				.39	.02	.07		.20						.34		.09	1.31	T.	5.34
Maple Ridge	L. Michigan						.26		.15	1.00	1.20							.55			.22	.13		.45				.60		.18		4.74
Marquette	L. Superior	.01	T.	T.			.46	.70	.03	2.44	.13	.11		.06	T.			.36	.02	.01	.01		.08	.05	.36		T.	.31	.13		.04	.52	5.83
Menominee	Menominee	.14					.09	T.	T.	1.65		T.						1.38	T.		T.	T.							.47		.07	1.69	5.49
Munising	L. Superior	.01					.52		.02	.44	.70	.07		.16				.74				.10	.04		.47				.29		.10	.06	3.72
Newberry	Tequamenon						.04	.57	.05	.88	.27			.02				.50	.01				.01		.77				.16		.14	.07	3.49
Powers	L. Michigan																																
St. Ignace	Lake Huron		.04					.45		.53	.35							.35							.04								1.76
Sault Ste. Marie	St. Marys	.09					.06	1.43	.01	1.28	1.68			.02				.10	.09			.11		T.	.76		T.		.03		.42	.29	6.37
Seney	Manistique		.02				.07	.45	.09	1.25	T.			.39				.25				.20	.17		.60	T.	T.		.19		.08	.07	3.83
Thomaston	L. Superior						.45	.20	.65	.55	1.22							.55		T.	T.	.15	T.	T.	.30						1.16	.82	6.05
Victoria	Ontonagon		.04				.66	.03	.35	.79	1.32	.07						.56	T.		.14		.01	.15	.45		.05	.01	.83	T.	.74	.06	6.26
Watersmeet	do	.11	.03				.53	.05	.17	1.58	1.27	.03						.78	.04		.43	.02	.07	.05	1.05	T.	.02		.96		.25	.06	7.50
Whitefish Point	L. Superior	.01	.25				T.		.08	.52	.49	.05	.08					.02					.47		.40				.07		.27	.09	2.80
Michigan—Lower Peninsula.																																	
Adrian	Raisin							.10	.57	.12	.04	.49		.25				.04		.59	T.		.12						.28		.20		2.80
Allegan	Kalamazoo								.81	.64	.41	.67							.42				.13						.94				4.02
Alma	Saginaw	T.	T.				T.	.45	.03	.23	.24	.04				T.		.15		1.60	.05	.14							.75		T.		3.68
Alpena	Lake Huron	T.	.13				.08	.67	T.	1.52	.65							.86	T.		.15		.16		.65				.09		.11	.05	5.12
Ann Arbor	Huron		.10					.32	.08	.10	.02	.30		.88				.02	.08	1.03	.04						.02		.50		.03		3.61

TABLE 2.—*Daily precipitation for August, 1912. District No. 4*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Michigan—Lower Peninsula—Con.																																	
Arbela	Saginaw		.52					.28	.11	.69	.08	.22						.13	.12	.82			.13						.66				3.76
Battle Creek	Kalamazoo							.15	.05	.56	.52	.16		1.47				.05	T.	.24									1.16		.82		5.18
Bay City	Saginaw	.33						.10	.95	.93	1.00	.40				.22		.05	.52				.13			1.21			.90	.11	.03		6.88
Benzonia	Betsey		.15				.05		T.	.40	.02							.63	.11	.02		.50	.16		T.				.68		.05	T.	2.77
Berlin	Clinton	.09	.60					.05	.21	.24	.18	.57	.28	.14				.09	T.	.55	.45	.01	.15		.07	.03		.53			T.	.01	4.25
Big Rapids	Muskegon		.08					.15		1.41	.36							.07		.60			.10						.82		.02		3.61
Blissfield	Raisin		T.					.81	.52	.20	.08	.28	T.	.21					T.	.91	T.		.15	.15					.47		.59		4.37
Bloomingdale	L. Michigan		T.					T.	2.97	2.37	.06	.67	T.						.26	.05			.05		T.				.69		.12		7.24
Cadillac	Manistee		.01				.03	.59	.03	2.58	.16							.20	.11	.16			.16	.10					.70		.08	.28	5.19
Cassopolis	St. Joseph						.01		.05		.25	.05							.96										.01				1.33
Charlevoix	L. Michigan							1.04	.24	1.02	.05							.73							.60				.26				3.94
Charlotte	Kalamazoo			.12				.15	.07	.36	.30	.23						.20		.39													1.82
Cheboygan	Cheboygan		.25					1.75	.50	.60	1.30							.45	.05			T.	T.	.20	.30				.18		T.		5.58
Clinton	Raisin							.22	.30	T.	T.	.57		.50					.04	.14		T.	.20						.45		.21		2.63
Coldwater	St. Joseph		.03					.10	.07	.64		.60		.16					.02	.35			.11	.02					.88				2.98
Concord	Kalamazoo							T.	.40		.35		.48				T.		.35		.10	T.										
Croton	Muskegon	T.	.08					.08		1.00	.12							T.	T.	.91	T.		T.	.03					.73			.35	3.30
Detroit	Detroit		.73			T.		.69	.60	.28	.02	.70	T.	.05				.01		.44			.01			.19			.32		T.	.01	4.05
Durand	Saginaw	.02	.02						.17		.26	.23						.08		.82	.06		.05						.40				2.11
East Tawas	Lake Huron		T.	.12				.08	.20	1.50	.40	.25						.35	.05		.30		.15	T.					.40			.20	4.00
Eloise	Rouge		.08					.20	.71	.29	.13	.70	.01	.33				T.	.12	.42	.02	T.	.06	.02			.72		.50		T.		4.31
Flint	Saginaw		.25	.20					.45		.28	.40	.09						.15	.30	.05		.05	.07			.02		.12	.55			2.98
Frankfort	Betsey								.15	.25								1.18	.10		.50								.63		.10		2.91
Ganges	L. Michigan								.31	.86	.66	.40							.10	.08			.07						.91		.33		3.72
Gaylord	Cheboygan		.40	T.			T.	.55	.01	1.13	.42							.98	T.	.02	T.		.23	.08	1.27				.40		.13	T.	5.62
Gladwin	Saginaw							T.		.15						T.		.20	1.40	.80									T.				2.55
Grand Haven	Grand	.01	T.					.09	.21	.30	T.	.01	T.					T.	.43	.55		T.	.08	T.			.04		.52		.19		2.43
Grand Rapids	....do	.07						T.	.77	.72	.22	.09	T.					T.	.18	.29			.04				T.		.57		.21		3.16
Grape	Raisin		.02					.50	.62	.32	.05	.42		1.29				T.	.01	.26	.05		.24				.01		.34		.10		4.23
Grass Lake	Grand		T.					.12	.03	.65	.12	.70		1.00					T.	.60	.33	.08	.07						.55	T.	.13		4.38
Grayling	Au Sable	.14	.08				T.	.09	.41	.09								1.00	T.	.19	T.	.20	.64		.28				.80		.40	.04	4.36
Greenville	Grand										.15									.82	.15		.08						.70				
Harbor Beach	Lake Huron		.30						.15	.50	.15	.20											.05		.05				.15				1.55
Harrison	Saginaw		.11							.82								.26		.41			.22						.78				2.60
Harrisville	Lake Huron	.10	.06					.20	.03	1.33	.31							1.70	.05	.09	T.	.06	T.	1.64					.26		.04	.15	6.02
Hart	Pentwater																																
Hayes	Pigeon		.21	.13			.08	.11	.34	.32								.29	T.	.08			.22		.17				.83	.07			2.85
Highland	Huron	.11	.40					.06	.08	.12	.37									1.51							.40		.49				3.54
Hillsdale	St. Joseph							.25	.06	.42		.50		.59				.51		.33			.51						.65		.13		3.95
Holland	L. Michigan	.01	T.					.02	.45	.40	.18	.32	T.	T.					.12	.18			.10						.62		.38		2.78
Howell	Saginaw							.05	.05	.12	.22	.30						.15		.85			T.				.25		.30		T.	T.	2.29
Ivan	Manistee		.25	T.			.02	.13	.16	1.54	.05		.02					.65	.05	.04	.01	.34	.26	.25	.08				.90	.12	.05	.28	5.20
Jackson	Grand		T.					.28	.05	.34	.04	.90		2.25				T.	.04	.18	T.	.04	.04	T.		T.			.60	T.	.25		5.01
Jeddo	St. Clair		.55		T			.11	.26	.15	1.33	.45						.03	T.	.95	T.		.05	T.		.10	.03		.65	.08			4.74
Kalamazoo	Kalamazoo							.35	2.75	.50				.64				.55	.48	.05			.55	.40					1.60		.10		7.97
Lansing (Agr. College).	Grand	.01	.21					.03	.13	.13	.18	.32	.01					.02	.26	.50			.01						.37		.01		2.19
Lansing (capitol)	....do	.17	.06					.06	.03	.16	.48	.03					.03	.02	.62	.15			.01					.25	.15		.03		2.25
Lapeer	Saginaw																																
Ludington	Pere Marquette						.08	.09	.73	.34								.12	.37			.41							1.42		.76		4.32
Luther	Manistee		.08	.01			.03	.06	.08	1.12	.20					.07		.08	.03	.08			.19	.03	T.				.96		.10	.05	3.17
Mackinaw	Lake Huron		.10					1.00	.20	.25									.10		.15				.10							1.90
Mancelona	L. Michigan		.01	T.			T.	.10	T.	1.10	.30	.03						.40	.10	.05		.03	T.		1.30				.60		.01	T.	4.03
Manistee	Manistee									.30										.47											.20		
Marshall	Kalamazoo																																
Midland	Saginaw		T.					T.	T.	.80	.20					T.		T.	.20	T.			.18				.40		.60		T.	T.	2.38
Morenci	Maumee							.42	.48	.08	.11	.30		.22				1.10	1.02			.76	.27						.44		.07		5.27
Mount Clemens	Clinton		.75					.05	.45	.25	.15	.40		T.				T.		1.00		.10	T.	.01			.55		.39		T.	.70	4.80
Mount Pleasant	Saginaw							.55		.65	.08									.59								.92				.14	2.93
Muskegon	Muskegon							.20	.12	.24								.05	.90	.02			.15	.01					.65		.02		2.36
Old Mission	L. Michigan		.04				.03		.08	1.16	.88	.02						.74	.14	.07	.02	.15		.07	.91		.01		.78		.11	.60	5.81
Olivet	Kalamazoo							.12	.15	.35	.42	.21		.56				.12	.07	.26			T.						.58		.23		3.07
Omer	Lake Huron		.10						.08	.50	.14								.39								.02					1.35	2.58
Onaway	Cheboygan																																
Owosso	Saginaw		.21					.01	.08	.12	.26	.62						.01	.29	.11	.02	.02	.20	.01					.55	.02			2.53
Petoskey	L. Michigan		.62					.86	.20	2.10	.30	.02						.70	.12		.16		.04		.18				.08		.03		5.41
Plymouth	Rouge	T.						T.		.63	.15	.19								.60									.45		T.		2.02
Pontiac	Clinton	.05	.32					.08	.13	.48	.05	.39		.05				T.		1.72		.18					.80		.47				4.72
Port Austin	Lake Huron	.07	.08						.32	1.80	.23	.06						.30					.55		.18				.25	.04		.03	3.91
Port Huron	St. Clair	.48	.56	T.			T.	.24	.27	.05	.02	.32		T.		T.		.11	T	.48	.21		.11	T.		.17	.08		.57		T.	T.	3.67
Reed City	Muskegon	.12	.13					.24	.52	1.21	.32		.04			.17	.05		.13	.12	.14		.20	.08	.02				.96		.07	.21	4.59
Roscommon	Au Sable		.13					.50	.05	.62	.06							.65	.04	.02		.09	.10	.01	.07				.85		.04		3.23
Saginaw	Saginaw	T.	.25					T.	.09	.30	.23	.30	.07			T.		.15	.18	.30	.02		.12				T.		.75	T.	T.	.14	2.90
Saginaw West Side	....do		.22	.03				.03	.04	.22	.14	.19				T.		.28	.17	.50		T.	.09						.75		.03	.04	2.73
St. James	L. Michigan		.31			.05		.86	.05	.86	.16							.80		T.			.10		.30				.20		.05		3.74
St. Joseph	St. Joseph							T.	.38	1.00	.17	.80						.40	1.25	.50	.50	.20	.70						.22	T.	T.		6.12
Sandusky	Lake Huron	.35	.28	.01	.03				.24		.32	.27								.83			.03	.03					.40	.18			2.97
Saranac	Grand	.03	.16					.75			.15	.33		.03				T.	.18	1.33			.05						.61		.15		3.77
South Haven	L. Michigan						.40	.60	2.00	.40									1.00	.60	.40								2.00	.60			8.00
Stanton	Grand																																
Thornville	Saginaw		.96					.30		.28	.08	1.18						.10	.30	1.30	.18	.20	.20			.03			1.10			T.	6.21
Traverse City	L. Michigan		.20							1.20								.80				.20			.20					.24			2.84
Vassar	Lake Huron		.20						.78	.38	T.			.35				T.	.42	1.00						.35		1.28				4.76
Wasepi	St. Joseph							.28	.02	.48	1.20	.55		.15					.78		.05								.75			.02	4.28
West Branch	Lake Huron		T.					.12	.18	.90		T.						.80		T.	.14								1.00	T.	T.	.14	3.28
Woodlawn	Au Sable		.50	.04				.62		.83	.18							1.42	.07				.13		1.26	T.			.42		.13		5.60
Ypsilanti	Huron		T.					.25	.51	.22	.15	.81		.92					.06	.78	.11	.12	.20				.02		.50		.03		4.68
Ohio.																																	
Akron ‡‡	Lake Erie			.06					.33	.13	.11	.08	.50			.04			T.	.24	.02	.09	.01	.21			.04	.11		.74				2.71
Antwerp	Maumee							.90		.21	.40	.30			.11			.35	2.30	.20			.37									.60	5.74
Benton Ridge	....do							.08	.63	T.	.16	.55		.02				.12	.13	.85	T.		.18						.40		.06	T.	3.18
Bowling Green	Lake Erie							.15	1.30	.05	.05	.24		.02				.13	.03	.28	.05	T.	.08						.56		T.		2.94
Bucyrus ‡‡	Sandusky		.02						.20	.30	.40	.25	1.10					.05	.02	.07	T.	T.		.05			T.	T.		.20		.01	2.67
Cleveland (1)	Lake Erie	.12	.36					.32	.03	.12	.04	.40		.07				.01	.06	.48	.72		.08	.13			.80		.80	T.	T.		4.54
Cleveland (2)	....do	.08	.05					.15	T.	.05	.04	.19		.02				T.		.24	.48		.11	.10			.80		.94				3.25
Conneaut	....do	.03	.16						.25		.85	.20		.07					.56	.30				.45			1.00	.17	.17				4.21
Findlay ‡‡	Maumee								.64	.26	.38	.48	.12					.02	.10	.92	.03	T.	.02	.18							.48		.12	3.75
Fremont	Sandusky		.11					.73	.21	.01		.33					.13	.05		1.67	.08		.04						.38	.05	.04		3.83

TABLE 2.—*Daily precipitation for August, 1912. District No. 4*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Ohio*—Continued.**																																	
Hedges	Maumee							1.15	.07	.18									.14	.12		.04	.30					.54		.03		2.57
Hillhouse	Lake Erie	.20	.18	T.					1.09	T.	.31	.34		.10						.22	.02	.23	T.	.62			1.35	.05	.25	T.	T.	.53	5.49
Hiram	do	.17	.10	T.				.11	.42	.22	.59	.45		T.	T.					.49		.18		.34			1.63		.34	.65			5.69
Hudson	do		.38							.50	.30	.50	.02		.03					.45		.33		.36			1.08		.34	.87		.59	5.75
Lima ‡‡	Maumee		T.						.30	1.77	.21	.70	T.		T.			T.	.50	T.	T.		.25	.15			.20			.54			4.62
Medina	Lake Erie		.10					T.	.14	.37	.11	.63			.11			T.	T.	.46		.05		.24			.05	T.	.54	.36		.40	3.56
Montpelier	Maumee							.54	T.	.52	.38		.12				.07		.12		.03	T.	.30			.04		.87		.06		3.05
Napoleon	do								.93	.02	.50	.52							.15	T.	.17		.16	.35					.47		.13	3.40
New Bremen	do							.54	.01	.08	T.	.23	.02	.20					.90	.05	.05		.33				T.	.13	.30				2.84
North Royalton	Lake Erie		.10					.43	.20	.17	.20	.63			.08					.45		.14		.28			.32		.53	.57			4.10
Norwalk ‡‡	do			.07					.39	.05	.17	.35						.01	.01	1.09	.66	.17		.12						1.13	.02		4.24
Oberlin	do	T.	.22					.11	.02	.45	.04	.31	T.	.01				T.	T.	.61	.01	.56	.01	.18	T.		.04		.55	T.	.10	T.	3.22
Ottawa	Maumee		T.					.34	2.15	.06	.07	.22		T.	.01			.15	T.	.24		.04	.24						T.	.45	T.	.08	4.05
Sandusky	Lake Erie		.06					.43	.35	.13	T.	.17		.01				.03	T.	.71	.17	.92	T.	T.					.56	.02	T.	.01	3.57
Tiffin	Sandusky							.20	.30	.18	.19	.28			T.			.20	.02	.05	.02	T.	.11						.22	.04	T.		1.90
Toledo	Maumee		T.					.67	.07	.01	.22	.11		.14	T.			.04	.25	.59		.48	.26			.07	T.		.50		.07		3.48
Upper Sandusky	Sandusky							T.	.50	.15	.12						T.	.14	1.03										.35	T.	.15	.20	2.64
Vickery	Lake Erie	.01	.03					.83	.48	.03		.50						.03	.14	.87	.17		.03	T.					.69	.03			3.84
Wapakoneta	Maumee		T.					.19	.11	T.	T.	1.14		.10					.77	T.	.04	.02	.11	.07			.15		.25	.04		T.	2.99
Wauseon ‡‡	do			.03					1.80	.03	.13	1.06	.02	.08			T.	.11	.03	.04	.06			.20			.09			.49		.32	4.49
Wickliffe ‡‡	Lake Erie		.34					.23	1.19	.05	.43	.66	.30							.35		.03		1.27			1.67	.18	.25	.18			7.13
Pennsylvania.																																	
Erie	Lake Erie	.33	.22					T.	.75	.47	.50	.30		.01		T.		.19	.27	1.02	.01		.09	.22			1.19		.29	.04	T.		5.90
New York.																																	
Adams Center	L. Ontario		.18	.32	.12	.18			.06	T.	.24	.04	.03		.20				.08	.04		.98	.05	.24	.35	.08	.18	.62	T.	.22	.04	T.	4.25
Angelica	Genesee		.22	.32						.04	.07	.04		.15	.04				.54	.20	.02		.31	.70		.38	.14	1.35	.12	.01		.28	4.93
Appleton	L. Ontario	.10	.20	.04	T.				.82	.10	.04	.13			.03			T.	.95	.10		.04	.07	.06	.02		.64		T.	.01		.17	3.52
Auburn	Oswego		.74	.08		.22				T.	.70	.08	.11		.08				.75	.38		.05		.28			.18					.24	3.89
Avon	Genesee	.05	.23	.32							.25	T.							.67	.19		.31		.19					.27			.20	2.68
Blue Mount Lake	Raquette									T.	.47	.63			T.			.27				.67	.53	.47	.35	.27	.30	.23	.27	.35	.43	.17	5.41
Brockport	L. Ontario	T.	.23	.13		.01			.33	.02	.01	.18	.08			.20		.02	.46	.16		.04	.06	.12	.02		.12	.21	.04	.02		.12	2.58
Buffalo	Lake Erie		1.65	T.	T.	.01		T.	.27	.05	.05	.03		T.	T.	T.		.37	.12	.16		.23	.14	.59		.01	.11		.01		T.	.20	4.00
Canton	Grass		.14	.93	.36	.26	T.	.14	.49	.04	.24	.01	T.		T.				T.	T.		.27	T.	.38	.25	.08	.75	.05				.05	4.44
Cape Vincent	St. Lawrence		.56		.34	.15			.97	.07	.01	.07						.19				.05	.05	.20	.40		.83					.25	4.14
Chazy	L. Champlain		.20	.48	.25	T.	.15		.05		.38		.38									1.30	T.	.10		.90	.50						4.69
Dannemora	do		.23	.67	.07	.02	T.		.18	.10	.20	.20	.20						.04	T.		T.	T.	.06	.12	1.05	1.26	.16	T.	.02			4.58
Elba	L. Ontario	.21	.31	.35		.05			.15	T.	T.	T.	T.					T.	.39	.08	T.	.51	.06	.06	T.		.76	.76	T.			.10	3.79
Fayetteville	Oswego		.21	1.32	T.					T.	1.02	.16	.03		.14				.39	.14		.12		.41				.29		.08		T.	4.31
Gabriels	St. Regis			.80	.15	.10	T.		.20	T.	.15	.20	.15		T.	T.			.10			T.	.15	.20	.10	.20	.65	.20	T.	.10		T.	3.45
Harkness	L. Champlain		.18	1.18	.03	.07	.01		.08		.10	.46	.27	.01		.05			.04			.09	.11	.06		.45	.25	.05		T.			3.49
Hemlock Lake	Genesee	T.	.41	.07		T.				T.	.09			.10				.54	.04	.09		.23		.31		.06	*	.32	*	.05		.41	2.72
Hunt	do	.30	.73								.14			.10				.55	.08			.73		.31		.26	.18	.08				.04	3.50
Ithaca	Oswego	.04	.57	.06	T.	.11		T.	T.	T.	1.12	.15						.03	.44	.03		.09	.05	.49		.10	.08	.02	.03	.01		.12	3.54
Keene Valley	Ausable		.10	.28	.15	.10	.05	.03	T.	.03	.23	.83	.11	.05	.15	.13			.15	T.		.05		.04	.05	.24	.35	.48		.26			3.86
King Ferry	Oswego	.05	.40	.03		.19			T.	.05	.80	.07	.07		.06			.47	.06	.10		.07	.03	.34			T.	.18				.13	3.10
Lake George	L. Champl'n			.25			.02		.11		1.67	.18			T.	.33			.31			.62	.36	.11		.23	.17						4.36
Lake Placid Club	Ausable, W. Branch.		T.	.54	.13	.08	.07	.05	.06	.04	.32	.54	.04		T.	T.			.05	.04		.26	.08	.34	.25	.28	.65	.28	T.	.09		T.	4.19
Lauterbrunnen	Genesee	.27	.45	.28					T.	.06	T.	T.		.31				T.	.54	.14		.38	T.	.33			.08	.17	.03			.07	3.11
Lockport	L. Ontario		.21	.11					.33	.12		.06						.74	T.	.24	T.	.27	.18	.05			.62	.69	T.			.16	3.78
Lowville	Black			1.08	.05	.02	.03				.02	.46	.09		.02				.14		.02		.48	.02	.12	.14		.44					3.13
Moira	St. Lawrence		.13	.12	.37				.69		.16	.36	.36		T.	.05				.06		.05	T.	.25	T.	.55	.30	.14	T.				3.59
Nehasane	Black		.18	.55	.08	.11	.02	T.		.02	.24	.08	.05		.01				.10	.02		.46	.01	.14	.17	.20	.44	.56		.13		.03	3.60
North Lake	do		.92								.59	.17			.16				.12		.09		.13	.23		.46	.17	.18				.08	3.30
Ogdensburg	St. Lawrence		T.	1.22	.23	T.			.64	.30	.64	T.	.12			T.			T.					.13	.30	.62	.38	T.				T.	4.58
Old Forge	Black			.60	.13	.07	.02				.23	.03	.03		.30				.15	.06		.66	.34	.15	.17	.35	.03	.25		.06		.12	3.75
Oswego	L. Ontario		.42	.40					.25	.03	.30	T.			.27	T.		T.	.24	T.		T.	T.	.13	.06		.63		T.	T.		.08	2.81
Otto	Lake Erie		.36	.41	.03		.06		.16	.02	.16	.12	.02	.13		T.				.25	.20	.15		.13	.20		.18	.35	.54	.40	.22	.16	4.25
Palermo	Lake Ont'rio		.10	.90					T.	.05	.20	.05	.03						.20	.03		.03	T.	.04	T.		.50	.20				.03	2.36
Perry City	Oswego	.12			.25				T.	.02	.52	.05	.04	.20					.57	.02		.10		.40		.18	.01	.15		.18		.19	3.00
Philadelphia	St. Lawrence			.48	T.	.07	T.		.11	.02	.69	.03	T.						.11			.24	.01	.31	.50	.26	1.31	.31				.12	4.57
Potsdam	Raquette	.15		.72	.45	.38	.02			.55	.08	.17	.02	.03									.06	.09	.38	.55		1.23					4.88
Prospect Home	Genesee																																
Raquette Lake	Raquette			.46	.08	.04	.02				.58	.12	.09		.12				.14			.29	.16	.06	.25	.06	.54	.32		.09		.02	3.44
Rochester	Genesee	.01	.54			T.			.09	.02	.31	.05			.01	T.		.25	.72	.17		.22	.03	.21	T.		.41		.03		.06	3.13
Romulus	Oswego																																
Scottsville	do		.28	.12		.12					.63						.60		.30			.17		.15	.06			.31				.15	2.89
Shortsville	do	T.	.25	.41	T.	.05				T.	.22	.01				.07		T.	.65	.28	.01	.18		.12				.28	T.			.10	2.63
Skaneateles	do		.36	.40	T.	.25			T.	.03	.56	.08	T.	.03	.07			.05	.55	.32	T.	T.		.46	T.		.07	.23		T.		.38	3.84
Syracuse	do		.35	.23	T.	T.			T.	T.	.69	T.			.03			.04	.34	.11		.41		.27			.37	T.	.08	T.		.05	2.97
Tupper Lake	Raquette		T.	.80	.55	.38	.04		.05	.09	.12	.08	.05						.03	T.		.47	.12	.28	.24	.11	.73	.43		.04		.06	4.67
Volusia	Lake Erie		.14	.17	.04	.03			.24	T.	.03	.02		.05				T.	.12	.66				.20			.75	.58	.09	.52		T.	3.64
Wanakena	Oswegatchie																																
Watertown	Black		.03	.47	.14	.21			.04	T.	.26	T.	.12						.12			.15	.02	.12	.33		.12	.75		.08		.14	3.10
Wedgwood	Oswego	.03	.52	.52		.15			T.	.05	.47	.13	.10						.91	.10	.01	.76	.20	.52		.20		.35	.03	T.		.20	5.25
Westfield	Lake Erie		.63	.06					.29	.07	.26	.13		.12					.21	.46	.06	T.		.29			.49	.31	.27	.41		.01	4.07
York	Genesee	T.	.17	.04	T.	T.			T.	.05	.81	.03	.01					T.	.61	.16	T.	.15	.01	.16		T.	.02	.38	T.	.02		.15	2.77
Youngstown	Lake Ont'rio		.63	T.			T.	T.	.84	.05	.18	.28	T.	T.				.09	.66			.69	.09				.70					.16	4.37
Vermont.																																	
Burlington	Champlain		T.	.84	.11	.01	T.		.02	.05	.10	.13	.04			.11			T.	T.		.01	T.	.05	.08	.26	.73	.01	T.				2.55
Cornwall	do																																
Enosburg Falls	do		T.	1.42	.15		.05		.05	.04	.09	.02	.57		.09	T.		.04	.03			.01	T.	.40	.10	1.44	.33	.02		.04			4.89
Hyde Park	do			.80	.10		.04	.01	T.	T.	.17	.04	.78	.01	.54	.01		.01	.07	T.		T.	.14	.16	.04	.80	.36	.13		.01			4.22
Northfield	do			.58	.04	.08			.16	.04	.20	.04	.42		.12	.40			.27				T.	.23	.02	.12	.68	.01		.02			3.46
Wells	do	T.		.52	T.	.05	T.		.08	T.	.05	.42	T.		T.	.18			.35				.78	.37		.09	1.55	.05				T.	4.49

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‡‡ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 4, Lake Region.*

Date.	Duluth, Minn.		Wisconsin.						Chicago, Ill.		Fort Wayne, Ind.		Upper Michigan.								Lower Michigan.					
			Florence.		Green Bay.		Milwaukee.						Escanaba.		Ewen.		Houghton.		Marquette.		Sault Ste. Marie.		Alpena.		Battle Creek		Cadillac.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	67	45	67	47	67	55	69	55	73	59	73	51	65	49	62	44	62	50	62	48	63	50	65	48	75	50	67	45
2....	59	42	59	46	62	52	63	54	66	58	70	53	60	47	60	52	58	49	57	49	59	51	62	50	69	55	63	50
3....	64	47	58	45	61	48	65	53	63	59	65	47	61	47	60	42	61	51	60	50	58	52	64	49	65	44	59	44
4....	66	46	68	38	69	47	66	52	65	55	70	50	66	46	65	33	65	49	62	49	62	49	69	49	68	50	65	42
5....	60	52	69	37	70	56	68	54	66	56	75	50	64	47	64	36	69	46	65	47	69	47	69	47	73	55	69	45
6....	60	55	63	48	66	54	72	59	76	62	76	60	62	56	70	40	58	53	62	54	73	45	68	51	77	56	71	52
7....	58	53	74	55	78	61	71	63	72	67	75	62	69	60	72	50	70	56	66	57	60	55	65	60	80	57	75	59
8....	58	54	71	61	72	66	70	58	77	66	76	65	68	60	66	56	64	55	65	58	67	58	66	62	82	65	76	58
9....	62	56	68	60	66	63	73	63	73	62	77	63	66	60	63	52	64	58	61	57	68	62	69	62	78	65	73	62
10....	69	60	73	59	73	60	68	62	72	61	73	60	68	61	62	57	63	57	65	56	70	61	74	62	77	60	71	62
11....	74	57	.....	.....	74	59	71	61	70	63	74	63	67	59	72	55	71	56	67	57	73	55	75	60	74	61	73	57
12....	72	57	76	47	75	59	72	63	80	63	84	60	68	54	80	49	77	53	72	57	76	55	75	60	81	61	77	59
13....	76	59	79	62	83	62	86	64	86	70	86	66	83	63	77	57	76	62	80	61	80	55	86	64	83	65	80	64
14....	62	49	70	54	75	59	80	64	81	69	81	65	64	47	67	51	62	45	64	48	66	48	78	49	80	63	75	59
15....	66	44	63	37	64	53	66	57	70	62	80	60	63	42	65	48	61	47	59	47	61	44	64	46	73	55	66	47
16....	64	54	70	38	68	50	67	54	69	62	74	57	65	49	72	45	67	48	64	47	66	41	67	44	73	52	68	43
17....	57	53	59	52	75	58	86	62	90	66	86	55	61	57	62	52	57	54	59	55	61	47	60	49	82	56	62	53
18....	58	48	64	58	67	61	76	66	85	74	87	64	66	55	63	52	62	49	58	53	63	54	69	58	87	65	74	56
19....	56	48	69	53	65	61	76	65	80	70	80	70	62	51	70	53	59	49	55	51	66	54	65	57	80	68	68	59
20....	68	54	.....	.....	79	60	76	64	84	71	84	68	69	57	70	52	61	54	65	54	69	53	64	55	83	64	81	60
21....	78	57	76	57	77	60	80	65	82	69	83	63	72	58	75	51	73	57	71	57	73	56	75	60	80	63	72	58
22....	65	48	72	55	72	57	74	61	76	65	80	59	69	54	63	52	62	48	67	51	62	56	68	54	76	60	67	60
23....	58	44	63	46	67	53	67	57	72	60	72	56	60	48	60	46	57	45	52	47	56	45	60	47	70	56	62	50
24....	61	52	85	53	86	58	89	61	90	66	84	58	76	59	75	52	66	52	75	51	62	45	75	47	88	51	81	47
25....	58	53	75	54	83	63	86	73	90	73	89	68	65	57	80	53	62	54	63	54	71	55	73	62	90	70	87	62
26....	68	48	70	53	72	56	82	62	86	65	87	61	64	49	75	52	59	49	69	51	62	50	84	54	84	69	78	55
27....	69	48	69	39	70	49	68	55	65	62	70	53	63	44	70	36	67	49	65	49	62	45	67	46	70	49	66	44
28....	60	50	65	51	64	53	80	60	89	62	79	54	59	50	65	49	63	48	59	52	60	51	59	51	70	52	58	50
29....	59	51	66	40	67	53	66	59	68	65	72	61	63	47	70	42	62	47	57	48	58	43	63	48	68	58	67	50
30....	62	54	61	46	64	56	75	61	87	64	79	54	61	50	63	50	61	50	60	46	60	43	59	44	69	50	61	49
31....	59	51	66	55	68	61	74	63	95	74	91	65	67	56	68	50	61	53	58	52	64	52	66	59	91	62	77	58
Mns..	63.6	51.3	68.6[b]	49.9[b]	70.9	56.7	73.6	60.3	77.4	64.5	78.5	59.4	65.7	52.9	67.9	48.7	63.9	51.4	63.4	52.0	65.2	50.9	68.5	53.4	77.1	58.3	70.6	53.5

Date.	Lower Michigan.						Ohio.								New York.								Vermont.			
	Detroit.		Muskegon.		Saginaw, West Side.		Cleveland.		Lima.		Sandusky.		Toledo.		Buffalo.		Canton.		Rochester.		Syracuse.		Burlington.		Northfield.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	71	56	66	53	70	48	68	55	74	49	71	54	73	53	68	57	70	45	69	51	69	48	69	51	65	47
2.....	66	54	65	55	67	53	69	55	72	52	69	57	69	56	67	52	70	51	70	53	73	53	70	53	71	43
3.....	65	50	63	51	65	46	64	58	68	45	65	58	66	49	64	50	61	53	66	53	63	53	59	54	58	48
4.....	70	53	67	55	72	48	64	53	70	45	67	55	69	52	64	51	64	51	66	51	64	52	66	50	65	46
5.....	74	54	67	44	75	48	69	56	72	45	71	53	75	54	68	53	68	49	72	52	67	54	68	46	69	39
6.....	74	59	70	55	78	53	70	54	77	56	75	58	75	58	74	56	72	51	71	51	73	54	69	52	70	42
7.....	77	63	71	63	82	60	79	59	79	59	78	60	77	61	82	56	78	48	78	57	76	54	75	49	75	42
8.....	78	64	79	63	83	64	79	65	78	60	79	66	76	65	75	65	68	60	79	66	76	65	73	60	73	55
9.....	78	66	73	63	79	66	80	67	79	66	81	66	79	66	78	69	78	62	79	68	75	68	75	66	74	61
10.....	74	64	71	62	77	63	77	65	77	63	79	64	76	63	75	66	76	65	81	66	74	67	76	64	75	62
11.....	74	63	70	60	79	62	73	63	.....	63	73	64	75	63	74	63	82	63	80	63	80	65	82	64	83	64
12.....	79	60	79	59	81	60	74	64	84	60	79	64	82	62	71	66	76	65	78	64	77	66	77	64	76	63
13.....	81	68	82	66	86	66	80	68	84	65	80	69	83	67	87	65	81	62	84	61	85	63	82	64	82	59
14.....	81	65	76	66	82	63	76	70	82	66	80	68	83	66	74	68	81	62	84	69	82	69	81	61	82	56
15.....	73	54	71	56	72	51	70	62	79	55	73	64	78	61	71	59	66	49	72	60	71	56	65	56	72	49
16.....	67	51	71	51	70	46	64	59	75	58	67	61	67	56	67	54	68	39	66	55	67	50	66	49	65	41
17.....	71	58	72	59	66	53	73	54	82	58	77	58	80	57	68	48	69	46	70	47	69	47	67	44	66	38
18.....	84	67	76	67	83	58	82	71	87	61	85	68	87	68	71	58	71	53	72	58	72	58	61	52	56	46
19.....	74	64	74	66	74	61	77	68	84	73	82	69	83	67	68	62	71	56	68	62	67	63	71	57	71	52
20.....	80	62	76	63	79	61	77	68	82	67	79	69	85	67	72	62	73	46	76	62	73	62	70	51	72	48
21.....	79	64	74	63	79	61	76	67	82	64	84	63	83	65	71	64	73	56	76	62	76	58	75	48	74	44
22.....	78	60	69	61	71	61	77	61	79	62	80	64	80	80	73	64	77	60	79	61	80	63	78	59	77	50
23.....	68	55	67	59	61	52	69	61	74	57	71	58	71	57	70	57	71	54	70	57	68	59	69	60	71	53
24.....	82	55	83	62	87	48	81	56	83	53	83	55	83	56	76	55	70	46	77	52	75	53	65	53	67	51
25.....	86	71	84	67	90	71	87	69	88	62	89	69	89	68	76	70	80	59	80	72	81	71	78	57	80	59
26.....	89	60	77	66	87	63	86	65	86	73	88	66	89	60	77	66	76	56	82	61	80	60	73	56	68	52
27.....	68	56	68	52	70	49	67	55	71	55	66	54	69	54	66	55	65	49	66	53	69	54	69	53	62	44
28.....	64	56	67	52	62	54	67	52	75	53	70	53	68	53	61	53	67	47	62	48	63	51	68	49	67	42
29.....	69	55	70	55	68	56	65	60	.....	55	67	62	66	59	67	53	60	45	66	54	65	50	62	50	61	47
30.....	70	52	67	54	65	47	66	56	80	55	69	57	71	56	62	46	58	40	61	47	59	45	57	47	54	46
31.....	90	62	85	64	78	60	87	65	89	59	89	68	91	65	66	55	65	38	61	51	58	45	62	45	61	36
Mns...	75.3	59.4	72.6	59.1	75.4	56.5	74.0	61.3	79.0[b]	58.5	76.3	61.7	77.4	60.1	71.1	58.6	71.1	52.5	72.9	57.6	71.8	57.3	70.3	54.3	69.9	49.2

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§ § Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The salient features of the weather of August, 1912, in the upper Mississippi Valley were the prevailing coolness in the northern part and the heavy precipitation at single stations scattered throughout the district. Viewed as a whole the month over much of the district was cool and comparatively wet. In that part of the district nearest the western end of Lake Superior the month was probably the coolest August since 1871 or earlier. At Duluth, Minn., which lies just outside the eastern boundary of the district, the month was 3° cooler than any other August in the period referred to. The latter half of the month was warmer than the first half, the differences in the mean temperatures of the two periods ranging from 2° in the north to 6° in the extreme south.

Storm frequency was somewhat greater than usual and instances of damage by lightning were numerous. The local storm that occurred at Spooner, Wis., and its vicinity on August 27 was one of the most severe of the month. This storm is said to have been of tornadic character. No lives are known to have been lost, but considerable damage was done. An unusually heavy rain occurred at Dubuque, Iowa, on the night of the 18th–19th. A description of this storm follows in a separate article.

The somewhat more than usual number of rainy days hindered agricultural operations in places, but this unfavorable feature was partly offset by reason of the fact that the soil was put in excellent condition for fall plowing.

The following table presents in condensed form the leading features of climatological interest for the various parts of the district:

Parts of States within district No. 5.	Temperature.				Precipitation.				
	Mean.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Average number of days with precipitation.
North Dakota	62.2	−2.3	101	34	2.96	+0.41	5.83	1.56	11
Minnesota	64.2	−2.2	100	32	4.03	+0.71	7.29	1.45	11
South Dakota	65.0	−3.6	97	38	2.71	+0.26	3.09	2.33	13
Wisconsin	64.2	−3.0	96	26	5.93	+2.38	9.45	1.86	12
Iowa	70.6	−1.0	101	40	3.73	−0.17	7.90	0.89	9
Missouri	75.1	−0.3	100	41	6.03	+3.11	8.70	2.24	12
Indiana	68.7	−2.7	95	40	5.31	+1.47	6.46	3.73	11
Illinois	72.4	−1.2	100	39	3.79	+0.62	8.38	1.10	10

TEMPERATURE.

The mean temperature was lower than the normal in all parts of the district except over a small area in Illinois, where the average was practically normal. Throughout the southern third of the district, however, the departures were slight, averaging less than a degree. The lowest mean temperatures, both relatively and actually, prevailed in that part of the district just west of Lake Superior, where the average was about 5° less than the normal. The lowest monthly mean temperature was 56.3°, at Deerskin Dam, Wis., and the highest monthly mean was 77.2°, at Carbondale, Ill.

As has been stated, the latter half of the month was warmer than the first half. The prevailing coolness during the former period was of marked character, and by the 15th it seemed probable that all previous records for cool Augusts would be broken. However, a decided change to warmer took place soon after the 15th, and the remainder of the month was comparatively warm, especially in southern sections. In the far north there were but two or three days with the mean temperature above the normal. In practically all cases the monthly minimum temperatures at the various stations occurred within the first five-day period. One notable exception was at Deerskin Dam, Wis., where the lowest temperature of the month, 26°, was recorded on the 26th. This was the lowest temperature reported from any station. Six other stations reported a minimum temperature of 32° or lower; and killing frost occurred at points in Wisconsin on the 3d and 4th. The monthly maximum temperatures were more numerous on the 25th than on any other date, but the 11th, 12th, 18th, 28th, or 31st were the warmest days at many stations. The highest temperature reported was 101° at Wahpeton, N. Dak., and Albia, Iowa, on the 25th, and at Marshalltown, Iowa, on the 31st. A maximum temperature of 100° occurred at 4 stations. The lowest monthly maximum temperature was 80°, at Trout Lake, Wis.

PRECIPITATION.

The normal precipitation for the upper Mississippi Valley in August is about 3.50 inches. The average for the current August was 4.19 inches, or about 0.69 inch more than the normal. Except in the Iowa area, only a few stations reported less than the normal amount. The Missouri and Wisconsin areas received the greatest falls, the average for each being about 6 inches. Koepenick, Wis., reported the heaviest monthly amount, 9.45 inches. At 10 other stations in the Wisconsin area the monthly precipitation exceeded 8 inches, while in the Missouri and the Illinois areas there were two and three stations, respectively, with amounts upward of 8 inches. Only one station had less than an inch of precipitation, namely, Washington, Iowa, where the fall was only 0.89 inch. Instances of excessively heavy rainfall, at the rate of 2.50 inches or more within a 24-hour period, occurred at 23 stations, most of which are in Iowa and Illinois. Over most of the district the precipitation was well distributed

through the month, the most prominent exception being in parts of Iowa and Illinois, where the last decade was quite dry.

RIVERS.

Owing to the heavy rainfall in the upper Wisconsin River Valley from the 6th to the 10th, inclusive, a moderate flood resulted in the Wisconsin River from the 10th to the 20th, but no heavy losses were reported. This flood is described elsewhere. Good boating stages prevailed in the Mississippi throughout the month. The excessively heavy rains in northeastern Iowa on the 18th–19th caused a rapid rise in the Maquoketa River which flooded the pumping station in the city of Maquoketa and put the waterworks out of commission for almost a day. It is reported that there was no serious property loss and no one was drowned.

MISCELLANEOUS.

In most sections there was less sunshine than usual, the average deficiency being about 5 per cent. The average number of clear days was 12; partly cloudy, 10; cloudy, 9; with 0.01 inch or more precipitation, 10. Northwesterly winds predominated, but many stations reported the prevailing direction as southwesterly. The highest velocity for a 5-minute period was at the rate of 54 miles an hour, from the east, at Minneapolis, on the 19th. At La Crosse, Wis., the highest velocity for the month was but 14 miles an hour.

HEAVY RAINFALL AT DUBUQUE, IOWA.

By JAMES H. SPENCER, Local Forecaster, United States Weather Bureau.

The rainfall during the storm of Sunday night, August 18–19 was the heaviest in 12 hours ever recorded here by the Weather Bureau; 5.17 inches fell from 6.52 p. m. of the 18th to 6.15 a. m. of the 19th; 1.88 inches fell from 7 to 8 p. m. of the 18th, and of this amount one-half inch fell in five minutes; 1.15 inches fell from 9 to 10 p. m.

There was much damage to city streets, the loss being estimated at $10,000 or more. An immense amount of macadam, brick, stones, etc., was carried down West Eighth and Hill Streets and Julien Avenue. In the vicinity of the Wales Hotel the street was practically impassable to teams for several blocks. In some cases stones weighing 100 pounds or more were carried down from the side hills and deposited in the streets. Débris was carried down West Eighth Street to below Main. Besides the streets mentioned, Couler, Kauffman, and Eagle Point Avenues were among those most damaged. Kenety & Lee, contractors, were improving Kauffman Avenue, and they lost heavily from the storm.

The Union Electric Co. experienced heavy loss. Car service was suspended in many parts of the city during a large portion of the night of the storm, owing to the condition of the streets. In some cases the tracks were buried in macadam and other débris. There was much damage at Union Park. The creek that runs through this beautiful park became a raging torrent. The water quickly overflowed its banks and tore up beds of flowers and shrubs by the roots. Benches and other paraphernalia were carried downstream and in some cases destroyed. The water rushed through the theater and rose nearly to the stage. One track to the park was buried for a mile or more in débris from the side hills. The loss to the company in the city and at the park will be several thousand dollars.

The damage from lightning in the city and county was considerable. Several houses and barns were struck, and damage resulted estimated at about $5,000.

The Illinois Central Railroad and the Chicago Great Western Railroad were crippled for about 24 hours by washouts in this vicinity, and for a few hours freight and passenger service was nearly at a standstill.

Cellars were flooded in all sections of the city.

The Mississippi River rose about 2 feet at Dubuque during the storm and another foot on the day following. Government contractors supplying brush for river improvements lost quite heavily, as the islands upon which they were working were flooded.

The wind accompanying the storm was not severe and damage to crops was not heavy.

AUGUST, 1912, FLOOD OF THE WISCONSIN RIVER.

By JAMES H. SPENCER, Local Forecaster, United States Weather Bureau.

From 3 to 4 inches of rainfall in the upper Wisconsin Valley on August 9 and 10, 1912, following many weeks of excessive precipitation in that section, caused a moderate flood in the Wisconsin River from the 10th to the 20th of the month. The river at Wausau, Wis., rose from 5 feet on the morning of the 8th to 9.9 feet on the evening of the 11th.

Losses were not heavy, and those sustained were chiefly due to the closing down of some of the mills during the highest water, to washouts which interfered with railroad traffic and particularly to delays that resulted in repairing damage sustained during the July flood.

Postmaster F. W. Kubaska, of Merrill, Wis., states relative to the flood:

> The only actual damage in the immediate vicinity of Merrill was to the cofferdam at the Grandfather Falls Co., which was under course of construction, and to the railroad bridge, upon which repairs were being made. The damage was about $2,000.

Special forecasts of high water were issued to Wausau and Merrill on the morning of the 10th, and were of value.

Very little or no damage resulted from the flood between Schofield and the mouth of the river. The crest, however, reached the Mississippi River only a short time before the occurrence in northeastern Iowa of the exceptionally heavy rainstorm of the 18th–19th. The water from this storm and the flood from the Wisconsin River raised the Mississippi River at Dubuque about 3 feet in 48 hours, and caused a loss in materials of several thousand dollars to Government contractors in this vicinity.

61854—12——4

TABLE 1.—*Climatological data for August, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota.																			
Amenia	Cass	954	15	64.6	− 1.5	95	25	40	2	45	4.17	+ 0.95	1.23	0	9	12	5	14	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	17	61.7	− 1.7	89	11	43	26	40	2.14	+ 0.58	0.62	0	12	9	9	13	se.	W. M. Mills.
Bowbells	Burke	1,958	.....	60.6	.....	85	10	41	26	36	3.51	.....	1.50	0	9	16	1	14	.....	G. H. Phelps.
Cando	Towner	1,488	11	61.2[e]	− 1.8	93[e]	11	40[e]	2	41[e]	3.14	+ 1.00	0.78	0	10	.....	.....	.....	.....	E. T. Judd.
Crosby	Divide	.....	6	61.4	.....	81	11†	39	26	33	2.96	.....	1.62	0	9	18	6	7	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	7	61.6	− 3.5	84	23	42	2	33	2.99	+ 0.23	0.86	0	15	4	12	15	se.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	13	60.2	− 4.2	84	23	37	3	35	2.13	− 0.75	0.78	0	8	8	14	9	nw.	C. J. De Vore.
Dunseith	Rolette	.....	15	61.0	− 2.6	86[b]	11	44[b]	2†	31[b]	2.30	0.00	0.38	0	13	.....	.....	.....	nw.	C. E. Goodsell.
Edmore	Ramsey	1,524	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. M. Van Osdel.
Fessenden	Wells	1,610	.....	62.4	.....	89	23	37	3	39	2.83	.....	1.07	0	14	14	8	9	se.	G. T. Seymour.
Forman	Sargent	1,249	18	66.4	− 0.9	94	24	43	3	41	2.63	− 0.65	1.10	0	8	18	7	6	nw.	A. Maltby.
Grafton	Walsh	827	21	62.1	− 2.2	86	11	38	3	38	2.26	− 0.16	0.89	0	12	8	11	12	nw.	A. R. T. Wylie.
Granville	McHenry	1,504	6	59.4	.....	86	23	36	30†	44	2.43	.....	0.66	0	9	8	16	7	nw.	W. A. Christianson.
Hannah	Cavalier	1,568	7	58.6	.....	84	1	36	2	41	2.40	.....	0.57	0	7	5	13	13	se.	J. Moffatt.
Hansboro	Towner	.....	4	60.4	.....	87	11	34	2	46	2.43	.....	0.60	0	10	17	5	9	se.	Geo. Dale.
Hillsboro	Traill	901	7	64.6	.....	92	25	41	2	39	5.02	.....	1.47	0	14	13	11	7	nw.	F. E. Mayall.
Lakota	Nelson	1,579	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. R. Pettes.
Langdon	Cavalier	1,615	17	59.8	.....	81	11	35	3	34	3.71	.....	0.92	0	9	10	0	21	w.	J. Woolner.
Larimore	Grand Forks	1,134	17	61.8	− 2.2	86	11	38	2	38	3.41	+ 0.39	1.10	0	13	13	7	11	n.	J. M. Freeman.
Lisbon	Ransom	1,091	8	64.3	− 2.2	96	25	37	3	41	2.52	+ 0.83	1.22	0	8	12	6	13	nw.	W. S. Adams.
McKinney	Renville	1,640	18	61.6	− 2.0	86	11	36	3	39	2.80	+ 1.42	1.20	0	7	0	24	7	nw.	N. P. Swenson.
McLeod	Ransom	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.84	.....	0.62	0	9	9	18	4	nw.	Martin Reinholt.
Manfred	Wells	1,605	11	62.4	.....	87	23	34	3	38	3.86	.....	1.15	0	12	10	11	10	nw.	P. B. Anderson.
Mayville	Traill	975	16	64.2	− 1.1	89	25	40	2	38	5.83	+ 2.77	1.40	0	13	17	0	14	.....	W. C. Gould.
Milnor	Sargent	1,097	.....	.....	.....	.....	.....	.....	.....	.....	2.92	.....	0.99	0	8	5	15	11	n.	Hj. Edman.
Minot	Ward	1,557	14	62.4	− 3.4	90	23	40	3	36	1.56	− 0.80	0.48	0	8	11	2	18	w.	W. J. Ellison.
Minto	Walsh	820	19	62.2	− 2.4	85	25	42	31	37	2.80	+ 0.26	0.65	0	13	7	9	15	nw.	S. S. Marsh.
Oriska	Barnes	1,270	7	62.2	.....	90	25	38	2†	41	3.06	.....	0.70	0	12	11	16	4	se.	J. J. Taylor.
Park River	Walsh	998	9	62.4	.....	86	11	39	3	34	2.85	.....	0.74	0	14	15	5	11	nw.	P. J. Prochaska.
Pembina	Pembina	789	14	61.8	− 2.0	83	11	38	2†	40	2.05	− 0.56	0.55	0	10	15	2	14	w.	C. W. Shumaker.
Power	Richland	1,020	20	62.6	− 4.3	93	24	35	3	43	3.70	+ 1.17	1.25	0	9	13	9	9	nw.	J. A. Power.
Pratt	McHenry	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. B. Ahern.
Towner	do	.....	4	61.2	.....	86	11	40	3	35	2.58	.....	0.65	0	9	3	21	7	se.	B. Bagley.
University	Grand Forks	830	20	62.2	− 2.7	87	25	39	2†	38	2.86	+ 0.34	0.61	0	17	4	16	11	n.	U. S. Weather Bureau.
Wahpeton	Richland	962	20	66.2	− 1.6	101	25	36	3	49	3.11	+ 0.06	1.30	0	8	15	2	14	nw.	Fred E. Smith.
Walhalla	Pembina	966	8	61.8	.....	83[b]	11	36[b]	3	38[b]	3.05	.....	0.74	0	12	6	18	7	.....	Ivanhoe Lee.
Westhope	Bottineau	.....	6	62.2	.....	84	6	40	26	35	1.69	.....	0.42	0	12	4	23	4	se.	W. A. Meddaugh.
Willow City	do	1,471	19	62.6[e]	− 1.5	89	11	43[e]	26	36[e]	2.48	+ 0.64	0.80	0	11	2	20	9	nw.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	21	68.8	− 0.5	95	25	46	3	31	2.95	− 1.02	0.80	0	7	8	19	4	sw.	Edward Carey.
Alexandria	Douglas	1,391	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. O. Unumb.
Angus	Polk	870	10	61.4	− 2.9	87	25	37	2†	39	2.51	.....	0.98	0	10	6	14	11	s.	John Nadvornik.
Bagley	Clearwater	.....	6	59.2	.....	87	25	32	2†	41	2.90	.....	1.30	0	10	3	22	6	se.	Jens Nelson.
Baudette	Beltrami	1,084	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. S. Dahlquist.
Beardsley	Bigstone	1,090	16	67.2	− 0.7	100	25	40	3	44	2.83	− 0.81	0.84	0	11	1	25	5	nw.	G. L. Fitzgerald.
Beaulieu	Mahnomen	1,200	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. P. A. Slattery.
Bemidji	Beltrami	1,400	9	.....	.....	.....	.....	.....	.....	.....	3.29	.....	0.88	0	12	.....	.....	.....	.....	C. W. Warfield.
Bird Island	Renville	1,039	22	66.6	− 2.2	93	25	44	3†	33	3.97	+ 0.56	0.77	0	12	11	10	10	nw.	Dr. F. L. Puffer.
Brainerd	Crow Wing	1,215	5	62.8	.....	89	25	41	2†	33	3.34	.....	1.50	0	10	10	7	14	se.	Theodore Miller.
Caledonia	Houston	1,179	19	65.8	− 3.0	89	25	49	3†	27	4.33	+ 0.34	1.50	0	13	10	3	18	se.	W. D. Belden.
Campbell	Wilkin	984	6	63.6	.....	96	25	38	3	45	3.57	.....	1.65	0	12	12	4	15	se.	J. T. Neisess.
Cass Lake	Cass	1,300	5	.....	.....	.....	.....	.....	.....	.....	3.94	.....	1.05	0	9	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	19	64.9	− 3.8	90	25	45	3	30	4.72	+ 1.84	1.50	0	15	13	6	12	se.	F. Tembreull.
Crookston	Polk	863	23	63.4	− 2.4	88	25	43	2	34	3.62	+ 0.28	0.84	0	13	13	4	14	s.	A. G. Andersen.
Detroit	Becker	1,364	16	62.6	− 2.1	92	25	35	3	40	5.05	+ 1.03	1.40	0	6	17	11	3	ne.	G. W. Peoples.
Ely	St. Louis	.....	1	60.7	.....	82	12	42	2	32	1.45	.....	0.77	0	8	6	18	7	e.	Iver Wisted.
Fairmont (near)	Martin	1,240	25	68.9	− 0.3	92	25	43	3	30	6.81	+ 3.87	1.87	0	13	8	17	6	nw.	W. F. Wherland.
Faribault	Rice	1,003	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Alice Chambers.
Farmington	Dakota	902	24	67.6	− 1.0	94	25	45	4	31	7.04	+ 3.62	1.58	0	14	12	10	9	nw.	E. D. Akin.
Fergus Falls	Ottertail	1,210	20	65.7	− 1.9	92	25	47	3	32	4.15	+ 1.32	1.22	0	13	13	8	10	se.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	4	62.4	.....	90	25	35	4	38	3.18	− 0.02	1.90	0	6	12	0	19	ne.	J. J. Tucker.
Fosston	Polk	1,289	2	61.2	.....	87	25	38	3	36	3.79	.....	1.13	0	17	9	18	4	nw.	O. N. Hem.
Glencoe	McLeod	1,000	15	66.8	− 1.3	92	25	46	1	32	4.66	+ 1.51	1.50	0	6	17	11	3	n.	F. B. Reed.
Grand Meadow	Mower	1,338	24	66.4	− 2.0	93	25	41	4	32	3.73	− 0.09	0.95	0	12	12	11	8	se.	C. F. Greening.
Gull Lake Dam	Cass	1,215	1	62.4	.....	88	25	40	4	32	3.65	.....	1.93	0	11	10	12	9	se.	U. S. Engineer Corps.
Hallock	Kittson	815	13	61.2	− 2.9	84	25	38	2†	34	4.48	+ 1.14	1.00	0	14	9	4	18	n.	D. A. Robertson.
Halstad	Norman	870	6	63.2	.....	93	25	36	3	40	3.61	.....	1.15	0	12	12	5	14	ne.	A. G. Holstrom.
Hinckley	Pine	1,050	7	62.0	.....	86	25	38	3	31	2.65	.....	1.43	0	7	7	9	15	e.	W. R. Newman.
International Falls	Koochiching	1,112	9	60.4	.....	84	25	37	15	39	3.96	.....	0.85	0	13	4	9	18	e.	C. Ardies.
Itasca State Park	Clearwater	1,500	1	65.4[d]	.....	90	25	38[e]	31	35	3.94	.....	0.90	0	10	5	16	10	n.	J. A. Stillwell.
Lake Crystal	Blue Earth	.....	4	67.2	.....	90	27	50	23	32	3.47	.....	1.12	0	9	19	6	6	nw.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	24	60.6	− 2.7	85	25	37	3	34	3.91	+ 0.11	1.84	0	12	4	19	8	se.	U. S. Engineer Corps.
Littlefork	Koochiching	.....	2	59.0	.....	83	25	32	2	38	3.93	.....	0.87	0	16	4	11	16	.....	O. C. Olson.
Long Prairie	Todd	1,299	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Sheets.
Lynd	Lyon	1,175	19	66.5	− 1.5	95	25	36	3	38	4.24	+ 0.82	0.87	0	11	21	4	6	sw.	J. W. Rouse.
Mankato	Blue Earth	758	14	.....	.....	.....	.....	.....	.....	.....	3.77	+ 0.07	0.76	0	11	20	4	7	sw.	Sadie H. Blake.
Milaca	Millelacs	1,072	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Foss.
Milan	Chippewa	955	18	65.4	− 3.1	95	25	41	3	38	3.37	+ 0.35	0.61	0	14	11	14	6	se.	O. K. Opjorden.
Minneapolis	Hennepin	918	21	66.8	− 2.8	91	25	47	2	26	5.56	+ 1.87	2.02	0	13	8	12	11	n.	U. S. Weather Bureau.
Montevideo	Chippewa	900	22	66.6	− 2.4	95	25	43	3	37	3.50	+ 0.96	1.24	0	10	11	10	10	se.	L. G. Moyer.
Moorhead	Clay	935	31	64.4	− 1.5	94	25	41	3	40	5.84	+ 2.74	2.34	0	14	14	8	9	se.	U. S. Weather Bureau.
Mora	Kanabec	.....	7	62.7	.....	87	25	38	4	37	5.81	.....	1.67	0	11	8	16	7	nw.	Hans Peterson.
Morris	Stevens	1,170	27	65.1	− 2.4	89	25	47	2†	32	3.44	+ 0.43	1.27	0	10	14	14	3	nw.	D. T. Wheaton.
New London	Kandiyohi	1,215	18	67.4	− 1.4	90	25	47	2	32	7.29	+ 4.45	1.30	0	10	8	13	10	se.	Harold Swensen.
New Richland	Waseca	1,180	18	68.2	− 2.1	92	25	46	2	30	3.32	− 1.68	0.91	0	9	15	13	3	nw.	N. O. Tyrholm.
New Ulm	Brown	791	32	68.0	− 3.3	95	25	47	3†	38	4.37	+ 0.85	0.81	0	11	6	15	10	s.	A. L. Henle.
Osakis	Douglas	1,343	4	63.7	.....	89	25	44	23	34	4.96	.....	1.97	0	11	7	7	17	nw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	22	62.1	− 2.0	91	25	41	2†	39	3.88	+ 0.05	0.88	0	14	11	5	15	nw.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	25	61.0	− 4.6	87	25	36	2	32	4.18	+ 0.12	1.40	0	9	11	9	11	n.	U. S. Engineer Corps.
Pokegama Falls	Itasca	1,280	25	59.4	− 3.6	84	11†	32	2	38	2.30	− 1.44	0.65	0	12	9	11	11	se.	Do.
Redlake	Beltrami	1,152	4	61.4	.....	85	25	38	3	34	3.65	.....	2.00	0	7	6	14	11	e.	A. C. Goddard.
Red Wing	Goodhue	680	16	.....	.....	.....	.....	.....	.....	.....	4.65	+ 0.61	1.45	0	10	8	4	19	se.	Louis Bach.
Redwood Falls	Redwood	1,050	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hockett Bros.
Reeds Landing	Wabasha	681	16	.....	.....	.....	.....	.....	.....	.....	4.34	+ 0.37	1.30	0	14	9	0	22	se.	John Deschneau

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days. 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota—Contd.																				
Rochester	Olmstead	991	7	66.6	.....	93	25	42	4	36	4.30	.....	1.10	0	14	10	8	13	nw.	Mary P. Cram.
Roseau	Roseau	1,040	3	58.7	.....	81	25	32	3	42	2.45	.....	0.50	0	15	13	9	9	e.	M. J. Hegland.
St. Charles	Winona	850	21	67.2	− 1.3	96	25	39	4	33	4.76	+ 1.34	1.13	0	10	13	8	10	se.	S. W. Gleason.
St. Cloud	Sherburne	1,020	35	65.3	− 2.6	90	25	45	2†	31	4.79	+ 1.27	1.57	0	12	10	13	8	se.	J. H. Capser.
St. Paul	Ramsey	940	41	66.5	− 3.0	91	25	47	2	27	4.40	+ 0.94	1.79	0	13	9	15	7	n.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	68.4	− 1.4	93	18	44	3	35	4.67	+ 1.27	0.87	0	10	13	12	6	s.	State Hospital.
Sandy Lake Dam	Aitkin	1,234	19	60.5	− 4.1	84	25	41	2†	29	3.50	− 0.40	0.95	0	8	5	16	10	e.	U. S. Engineer Corps.
State Sanitorium	Cass		4	62.0	.....	86	25†	42	2	34	5.12	.....	1.60	0	9	7	11	13	ne.	Dr. L. B. Ohlinger.
Stillwater	Washington	694	6	.....	.....	.....	.....	.....	.....	.....	5.27	.....	2.12	0	9	16	1	14	nw.	Oscar Ostrom.
Taylors Falls	Chisago	759	5	65.6	.....	87	26	42	2	30	6.21	.....	1.90	0	10	14	8	9	n.	Minneapolis Gen. Elec. Co.
Thief River Falls	Pennington	1,137	1	61.2	.....	86	25	38	3	38	1.60	.....	0.40	0	6	10	11	10	w.	E. W. Lown.
Tracy	Lyon		1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. D. Davis.
Warren	Marshall	859	....	65.0	.....	95[b]	23†	41	3	51[b]	2.08	.....	0.50	0	8	4	15	12	.....	P. H. Holm.
Warroad	Roseau	1,069	2	59.0	.....	82	9†	35	4	39	3.27	.....	0.80	0	13	11	8	12	s.	G. A. Sawyer.
Winnebago	Faribault	1,100	14	68.1	− 2.1	95	25	44	3	44	3.61	− 0.34	0.75	0	11	8	16	7	se.	H. H. Haight.
Winnibigoshish	Itasca	1,300	24	62.6	− 1.8	86	25	42	2	32	4.99	+ 1.29	2.62	0	9	13	7	11	nw.	U. S. Engineer Corps.
Winona	Winona	700	16	69.1	− 0.8	97	25	46	4	28	3.05	− 0.84	1.12	0	12	9	10	12	nw.	P. C. Myers.
Worthington	Nobles	1,593	17	66.2	− 2.3	92	25	43	3	33	2.42	− 1.16	0.61	0	9	15	5	11	sw.	M. P. Mann.
Zumbrota	Goodhue	917	16	66.1	− 3.3	92	25	40	4	31	5.33	.....	1.60	0	9	13	13	5	nw.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	21	64.8	− 3.6	97	25	38	3	43	3.09	+ 0.26	0.55	0	15	16	3	12	nw.	I. T. Patridge.
Sisseton	Roberts	1,202	6	65.1	.....	93[a]	25	45	3†	33[a]	2.33	.....	0.67	0	11	13	0	18	n.	George Gray.
Wisconsin.																				
Antigo	Langlade	1,489	18	60.6	− 4.5	85	24	37	4	33	7.88	.....	1.94	0	11	8	6	17	e.	Elton C. Larzelere.
Barron	Barron	1,115	21	62.2	− 2.7	85	25	37	4	33	8.57	+ 5.12	2.22	0	10	14	12	5	n.	Wm. A. Kent.
Beloit	Rock	750	46	67.8	− 2.8	89	31	43	1	29	3.19	− 0.42	0.76	0	9	7	17	7	sw.	Smith Observatory.
Big St. Germain Dam	Vilas	1,590	2	59.8	.....	84	24†	36	4†	35	7.89	.....	2.29	0	14	8	13	10	n.	Fred Hessen.
Brodhead	Green	812	14	69.0	− 1.6	93	25	45	3	32	3.09	− 1.13	1.00	0	9	11	15	5	sw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	8	66.0[a]	.....	89[a]	25	43[a]	4	27[a]	3.83	.....	0.80	0	15	3	15	13	nw.	Geo. W. Smith.
Cottage Grove	Dane	888	1	.....	.....	.....	.....	.....	.....	.....	1.86	.....	0.58	0	11	12	13	6	sw.	John E. Mellish.
Darlington	Lafayette	867	6	67.7	.....	96	25	39	4	38	3.70	.....	1.50	0	6	23	1	7	nw.	F. J. O'Neill.
Deerskin Dam	Forest	1,685	2	56.3	.....	84	24†	26	29	47	8.07	.....	1.60	0	13	4	14	13	w.	Wm. E. O'Neal.
Delavan	Walworth	920	21	67.3	− 2.5	92	31	41	2	32	2.22	− 1.17	0.64	0	10	5	11	15	sw.	Elwood S. Austin.
Dodgeville	Iowa	1,116	12	67.0[a]	− 2.6	91[a]	25	42[a]	4	41[a]	3.70	+ 0.64	1.50	0	5	15[a]	1[a]	8[a]	w.	Thomas Gibbon.
Downing	Dunn	983	10	60.8[d]	− 5.9	90[d]	25	36[d]	4	36[d]	7.75	+ 4.10	2.00	0	10	3[d]	0[d]	24[d]	se.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	21	66.0	− 3.2	89	25	42	4	29	8.83	+ 5.57	2.00	0	16	7	17	7	n.	Robert D. Whitford.
Grand Rapids	Wood	1,021	13	64.0	− 4.0	90	25	42	4	30	7.99	+ 5.38	2.04	0	12	11	6	14	ne.	Willis B. Raymond.
Grantsburg	Burnett	1,095	21	62.6	− 3.8	89	25	38	2†	35	7.26	+ 3.81	2.10	0	9	6	7	18	ne.	Theodore Olsen.
Hancock	Waushara	1,091	20	66.2	− 2.4	96	25	43	4	32	8.34	+ 5.30	2.03	0	11	10	7	14	sw.	Frederick B. Hamilton.
Hatfield	Jackson	973	18	63.6	− 4.1	90	25	35	4	36	6.66	+ 3.57	2.11	0	11	1	22	8	se.	Walter S. Woods.
Hayward	Sawyer	1,197	21	60.3[a]	− 5.4	86[a]	25	34[a]	4	41[a]	6.10	+ 2.63	1.65	0	11	7[a]	8[a]	15[a]	sw.	Wm. E. Swain.
Hillsboro	Vernon	1,000	21	64.9	− 2.5	91	25	37	4	36	4.52	+ 1.33	2.07	0	14	12	14	5	se.	Emil V. Wernick.
Koepenick	Langlade	1,683	21	59.6	− 4.7	83	25	35	4†	35	9.45	+ 6.04	2.23	0	14	....	....	....	nw.	Edward S. Koepenick.
Lac du Flambeau	Vilas		2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. J. Lovett.
La Crosse	La Crosse	714	40	67.8	− 2.2	95	25	45	4	31	3.33	− 0.08	1.17	0	13	5	13	13	s.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	21	67.5	− 1.7	91	25	47	3†	30	2.14	− 1.40	0.53	0	14	8	16	7	nw.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	21	67.6[b]	− 2.3	93[b]	25	43[b]	4	32[b]	4.22	+ 1.52	1.72	0	9	7[e]	14[e]	7[e]	sw.	Edward Pollock.
Long Lake	Oneida	1,592	4	58.6	.....	85	24	31	4†	42	6.69	.....	1.80	0	15	6	6	19	ne.	Louis Frank.
Madison	Dane	974	43	67.4	− 1.8	89	25	50	4	27	3.16	− 0.05	0.78	0	10	9	15	7	sw.	U. S. Weather Bureau.
Mather	Juneau	962	8	64.4	.....	89	25	37	4	34	6.57	.....	2.06	0	16	7	3	21	w.	Frank Evans.
Mauston	....do	882	16	66.0	− 1.8	88	25	41	4†	32	4.65	+ 1.31	1.60	0	12	12	10	9	nw.	Eugene L. Hitchcock.
Meadow Valley	....do	974	21	64.4	− 2.7	90	25	39	4	36	5.29	+ 2.08	1.90	0	12	2	20	9	nw.	Charles H. Johnson.
Medford	Taylor	1,420	23	62.0	− 5.3	89	25	38	3†	32	7.69	+ 4.17	1.30	0	11	17	7	7	s.	Wm. Zeit.
Merrill	Lincoln	1,267	6	63.4[b]	.....	91[b]	25	40[b]	4†	45[b]	8.38	.....	1.77	0	11	11[b]	6[b]	12[b]	nw.	J. M. Wilson.
Minocqua	Oneida	1,604	8	59.8	.....	86	25	39	4	31	7.92	.....	2.09	0	15	9	11	11	se.	Benjamin W. Applebee.
Mondovi	Buffalo	738	4	65.4	.....	91	25	39	4	30	5.93	.....	1.72	0	16	10	12	9	nw.	Dr. Charles Hebard.
Mount Horeb	Dane	1,226	8	66.8	.....	91	25	41	2	30	3.43	.....	1.00	0	10	12	5	14	nw.	W. M. Lewis.
Muscoda	Grant	666	3	68.4	.....	94	25	45	3†	37	2.85	.....	0.71	0	10	20	0	11	nw.	Wm. Hessler.
Neillsville	Clark	996	22	65.0	− 2.1	91	25	38	14	36	8.45	+ 5.17	2.75	0	9	....	....	....	nw.	Wm. Heaslett.
New Richmond	St. Croix	990	7	64.7	.....	91	25	41	4	33	7.85	.....	1.95	0	14	12	14	5	sw.	Franc A. R. Van Meter.
Osceola	Polk	806	21	65.4	− 1.6	90	25	44	4†	31[d]	5.66	+ 2.38	1.50	0	9	13	9	9	n.	Charles W. Staples.
Park Falls	Price	1,492	21	60.4[d]	.....	88[d]	25	34[d]	4	35[d]	6.70	.....	1.64	0	11	5[e]	9[e]	14[e]	n.	Flambeau Paper Co.
Portage	Columbia	809	23	68.2	− 0.5	91	25	48	4	28	6.79	+ 3.56	2.25	0	13	13	9	9	nw.	James H. Martin.
Port Edwards	Wood	969	2	65.0	.....	90	25	43	2†	39	6.49	.....	1.73	0	14	10	3	18	s.	Nekoosa-Edwards Paper Co.
Prairie du Chien	Crawford	690	21	68.5	− 2.6	94	25	45	4	39	6.52	+ 3.26	3.70	0	9	12	1	18	nw.	James A. Gillis.
Prairie du Sac	Sauk	750	4	68.1	.....	92	25	44	4	32	3.51	.....	0.82	0	13	2	19	10	nw.	Wis. Riv. Power Co.
Prentice	Price	1,551	14	60.4	− 4.1	88	25†	31	4†	39	7.20	+ 3.07	1.66	0	12	2	6	23	w.	Joseph G. Lash.
Rhinelander	Oneida	1,550	6	61.8	.....	88	24	35	5	35	8.32	.....	2.65	0	16	7	5	19	se.	Rhinelander Power Co.
Shullsburg	Lafayette	1,019	6	67.0	.....	90	25	41	4	37	3.85	.....	1.93	0	9	13	8	10	s.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	6	60.2	.....	86	26	33	4	41	4.60	.....	0.90	0	10	7	5	19	sw.	John M. Sayles.
Spooner	Washburn	1,104	18	61.7	− 5.2	85	25	39	3	35	7.22	+ 4.06	1.96	0	10	15	8	8	.....	Horace A. Bresee.
Stanley	Chippewa	1,082	8	62.8	.....	87	25	36	4	35	7.35	.....	1.35	0	12	12	9	10	se.	W. Humphrey Scott.
Stevens Point	Portage	1,113	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Culver.
Sugar Camp Dam	Oneida	1,582	2	.....	.....	.....	.....	.....	.....	.....	8.42	.....	1.74	0	14	8	14	9	se.	Lyman Haskins.
Trout Lake	Vilas		0	58.6	.....	80	23	38	4	28	5.86	.....	1.54	0	12	3	10	18	nw.	F. B. Moody.
Twin Lakes Dam	....do	1,625	2	.....	.....	.....	.....	.....	.....	.....	8.29	.....	2.26	0	8	3	21	7	sw.	Albert D. Hansen.
Valley Junction	Monroe	930	20	64.6	− 2.5	89	25	39	4	32	6.52	+ 2.24	2.39	0	12	3	15	13	nw.	Frederick Muermann.
Viroqua	Vernon	1,412	22	67.6	− 1.1	90	25	46	2†	27	3.29	− 0.49	0.90	0	10	6	16	9	nw.	Henry E. Rogers.
Vudesare	Vilas	1,600	4	58.1	.....	82	24	34	5	37	6.26	.....	0.95	0	13	10	13	8	w.	Louis L. Thomas.
Watertown	Jefferson	824	21	65.9	− 2.5	87	25	46	5	29	2.53	− 0.20	0.45	0	11	7	21	3	w.	Charles J. Salick.
Waukesha	Waukesha	864	21	66.6	− 2.2	90	25	44	4†	30	3.11	− 0.02	0.85	0	12	8	22	1	sw.	Carroll College.
Wausau	Marathon	1,212	17	62.6	− 3.9	88	25	40	4	28	7.36	+ 3.78	2.05	0	13	15	4	12	e.	Geo. H. Halder.
Weyerhaeuser	Rusk	1,297	10	60.2	.....	87	25	31	4	38	8.27	.....	2.35	0	12	10	11	10	ne.	Miss Etta Stiles.
Whitehall	Trempealeau	675	21	65.0	− 3.3	88	25	39	4	33	6.70	+ 3.37	2.20	0	11	....	....	....	w.	Hans J. Haugh.
Iowa.																				
Albia	Monroe	959	14	72.4	− 1.0	101	25	45	4	41	2.77	− 1.38	1.10	0	11	16	10	5	e.	J. I. Chonoweth.
Algona	Kossuth	1,213	38	69.7	− 1.2	92	25	45	3	32	6.71	+ 2.79	2.10	0	11	22	3	6	se.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	21	69.5	− 1.0	93	25	48	3	33	6.13	+ 2.16	2.45	0	12	14	14	3	nw.	David E. Haddan.
Amana	Iowa	721	36	71.3	+ 0.4	96	31	44	3	31	1.77	− 1.84	0.76	0	7	15	11	5	s.	C. Schadt.
Ames	Story	926	36	72.1	− 0.1	97	31	46	3	38	4.14	+ 0.47	1.89	0	9	7	20	4	sw.	Iowa State College.
Baxter	Jasper	998	12	70.8	− 1.1	98	18†	44	4	38	3.20	− 1.35	1.47	0	11	13	15	3	se.	W. R. Vandike.
Belle Plaine	Benton	828	22	71.4	+ 0.6	98	31	44	2†	36	2.03	− 2.12	1.00	0	8	10	13	8	nw.	S. P. Van Dike.

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa—Continued.																				
Belmond	Wright		2	69.2	.....	92	25†	43	3	33	5.03	.....	1.20	0	10	2	24	5	s.	Geo. P. Hardwick.
Bloomfield	Davis		5	71.4[e]	.....	98	31	46	4	30	1.73	.....	0.74	0	6	15	0	16	sw.	Albert Power.
Bonaparte	Van Buren		21	73.2	− 1.1	97	25†	45	4	30	2.44	− 2.21	0.78	0	9	.....	.....	.....	.....	B. R. Vale.
Boone	Boone	1,134	7	69.7	.....	94	31	49	2†	32	3.17	.....	1.74	0	8	14	1	16	.....	C. F. Henning.
Britt	Hancock	1,236	15	68.9	− 1.1	93	25	45	4	33	5.66	+ 1.61	1.31	0	13	20	8	3	s.	L. M. Goodman.
Buckingham	Tama		12	.....	.....	.....	.....	.....	.....	.....	2.01	− 3.02	0.55	0	8	15	12	4	s.	J. S. Guynn.
Burlington	Des Moines	544	16	72.2	− 1.9	94	18†	49	4†	33	2.36	− 3.08	1.16	0	9	18	7	6	s.	Max E. Poppe, jr.
Carroll	Carroll	1,265	22	68.4	− 2.7	95	25	48	2†	37	4.76	+ 1.05	2.16	0	8	19	9	3	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	30	71.7	− 1.0	98	31	48	3	38	2.80	− 0.70	1.91	0	5	.....	.....	.....	s.	R. S. Toogood.
Charles City	Floyd	1,015	21	68.2	− 2.5	92	31	44	3	32	4.33	+ 0.91	1.05	0	14	4	14	13	nw.	U. S. Weather Bureau.
Clear Lake	Cerro Gordo	1,241	14	70.4	− 1.3	93	12	46	5	23	5.49	+ 1.18	1.40	0	10	26	3	2	nw.	Oscar Stevens.
Clinton	Clinton	593	45	71.4	+ 0.1	97	18	43	2	31	4.24	+ 0.59	3.17	0	7	17	11	3	sw.	A. E. Reed.
Columbus Junction	Louisa	595	11	72.2	− 0.2	96	31	47	3	34	2.20	− 4.02	0.82	0	6	19	9	3	sw.	J. B. Johnson.
Davenport	Scott	580	41	72.8	− 0.2	95	31	48	4	27	2.77	− 0.87	2.10	0	7	11	11	9	sw.	U. S. Weather Bureau.
Decorah	Winnishiek	875	19	69.4	− 0.8	96	25	42	3†	34	4.94	+ 1.90	2.10	0	10	.....	.....	.....	.....	F. H. Baker.
Delaware	Delaware	1,083	21	69.2	− 0.4	93	25	44	3	30	6.79	+ 3.24	4.28	0	9	11	16	4	se.	William Ball.
Des Moines	Polk	861	34	72.7	− 0.3	97	25	52	4	33	3.52	− 0.09	1.34	0	12	12	9	10	sw.	U. S. Weather Bureau.
Dubuque	Dubuque	639	39	69.7	− 2.3	92	25	47	4	27	6.79	+ 3.75	5.23	0	10	9	10	12	s.	Do.
Earlham	Madison		10	70.8	+ 0.8	95	25	41	4	39	3.73	− 1.40	1.32	0	8	18	8	5	sw.	George Phillips.
Elkader	Clayton	727	33	68.5	− 2.5	91	31	40	4	36	5.41	+ 2.51	2.75	0	7	18	10	3	nw.	Chas. Reinecke.
Elma	Howard		2	67.2	.....	90	25	41	3†	37	3.91	.....	0.82	0	14	8	16	7	se.	H. A. Moore.
Estherville	Emmet	1,298	17	66.8	− 3.4	94	25	44	3	35	4.39	+ 0.79	1.10	0	11	18	11	2	s.	A. O. Peterson.
Fairfield	Jefferson		28	73.1	+ 1.8	95	25†	46	4	30	1.12	− 2.96	0.30	0	7	20	5	6	sw.	R. M. McKenzie.
Fayette	Fayette	1,003	22	67.6	− 1.5	91	31	40	3†	33	7.90	+ 4.63	3.88	0	10	16	12	3	nw.	R. Z. Latimer.
Forest City	Winnebago	1,226	18	68.4	− 1.9	91	25	45	3	31	4.84	+ 1.34	1.28	0	11	17	7	7	sw.	J. A. Peters.
Fort Dodge	Webster	1,126	12	70.1[e]	− 1.3	97[e]	31	46[e]	3	32[b]	2.42	− 3.22	0.80	0	7	.....	.....	.....	.....	J. F. Monk.
Fort Madison	Lee	516	63	.....	.....	.....	.....	.....	.....	.....	3.27	− 0.52	1.70	0	6	5	12	14	sw.	Miss L. A. McCready.
Gilman	Marshall	1,052	13	.....	.....	.....	.....	.....	.....	.....	2.78	− 1.00	0.96	0	7	.....	.....	.....	.....	J. L. Wylie.
Grand Meadow	Clayton	1,180	21	65.8	− 3.1	85	18†	44	4	23	5.26	+ 1.93	1.82	0	12	12	12	7	nw.	F. L. Williams.
Grinnell	Poweshiek	1,023	20	72.2	+ 0.6	99	25	46	3	35	3.00	− 1.62	0.90	0	9	14	13	4	w.	D. W. Rrainard.
Grundy Center	Grundy	976	21	71.3	+ 0.3	97	19†	43	3	38	4.42	+ 0.85	2.50	0	8	17	10	4	n.	J. B. Calderwood.
Guthrie Center	Guthrie	1,077	17	71.5	− 0.7	95	25	47	4	37	2.82	− 1.50	1.21	0	10	15	13	3	nw.	D. G. Beardsley.
Hampton	Franklin	1,155	22	70.0	− 0.6	95	25	45	3	32	5.42	+ 2.05	1.55	0	13	4	24	3	nw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Independence	Buchanan	921	48	69.6	− 0.5	93	31	44	3†	31	6.86	+ 3.67	4.62	0	11	17	10	4	nw.	R. E. Dudley.
Indianola	Warren	969	21	71.8[d]	− 1.0	93[e]	24	50	4	30[b]	2.18	− 2.50	0.55	0	7	.....	.....	.....	.....	Prof. J. L. Tilton.
Iowa City	Johnson	683	52	71.2	− 0.5	97	31	45	3	37	3.62	− 0.62	2.76	0	7	17	8	6	w.	Prof. A. H. Smith.
Iowa Falls	Hardin	1,170	19	67.8	− 2.1	92	31	42	3	35	2.91	− 0.47	0.93	0	11	20	3	8	n.	J. B. Parnelee.
Jefferson	Greene		13	71.1	.....	96	25	47	4	39	4.25	+ 0.49	2.32	0	11	17	8	6	nw.	Ora M. Hall.
Keokuk	Leo	547	41	74.0	− 0.6	93	25	52	4	27	2.50	− 0.74	0.62	0	12	14	9	8	sw.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	20	72.6	− 1.9	97	31	41	2	39	3.02	− 0.80	0.85	0	11	5	20	6	.....	J. H. Landes.
Knoxville	Marion	920	17	73.6	.....	98	25	46	4	32	1.76	.....	0.38	0	9	10	8	13	.....	Casey and Bellville.
Lacona	Warren		13	.....	.....	.....	.....	.....	.....	.....	2.44	− 2.38	1.00	0	10	12	17	2	.....	J. B. Alter.
Lansing	Allamakee			.....	.....	.....	.....	.....	.....	.....	3.39	.....	1.29	0	12	.....	.....	.....	.....	Chas. R. Serene.
Le Claire	Scott	576	12	.....	.....	.....	.....	.....	.....	.....	2.16	− 1.43	0.88	0	8	.....	.....	.....	.....	Miss M. T. Disney.
Marshalltown	Marshall	947	20	71.8	0.0	101	31	45	3	40	2.31	− 1.33	0.83	0	14	16	8	7	nw.	Jacob Eige.
Mason City	Cerro Gordo	1,132	15	67.9	− 2.1	90	25	42	3	31	6.96	+ 3.36	1.85	0	11	10	17	4	s.	J. S. Mills.
Monroe	Jasper			72.0	.....	98	25	48	4	37	2.58	.....	1.10	0	9	20	7	4	s.	J. A. Dibel.
Mount Pleasant	Henry	729	31	71.6	− 1.7	94	31	45	4	30	2.00	− 2.07	0.82	0	7	16	7	8	sw.	J. W. Edwards.
Muscatine	Muscatine		52	.....	.....	.....	.....	.....	.....	.....	2.49	− 1.89	1.62	0	11	.....	.....	.....	.....	William Molis.
New Hampton	Chickasaw	1,169	15	68.6	− 0.9	90	25	45	4	29	5.04	+ 2.01	2.42	0	12	23	5	3	n.	A. F. Kemman.
Northwood	Worth	1,122	16	67.4	− 2.1	88	25	47	2†	30	4.28	+ 0.24	1.10	0	11	15	8	8	sw.	Chas. H. Dwelle.
Olin	Jones	760	14	70.1	− 0.6	94	18†	42	4	31	7.72	+ 3.01	5.50	0	6	12	14	5	nw.	Dr. F. W. Port.
Osage	Mitchell	1,184	25	68.4	+ 0.4	93	25	43	5	32	4.65	+ 1.62	1.10	0	8	18	7	6	nw.	Lester Coonradt.
Oskaloosa	Mahaska	843	36	71.8	− 0.1	96	31	45	4	30	2.79	− 0.43	1.29	0	7	16	2	13	sw.	Joseph Boyd.
Ottumwa	Wapello	649	17	75.0	0.0	100	25†	50	4	33	1.21	− 2.88	0.50	0	4	17	9	5	nw.	Chester Potter.
Pella	Marion	877	10	71.8	− 2.6	98	24	43	4	34	1.60	− 2.58	0.41	0	10	18	2	11	nw.	J. H. Ver Stoeg.
Perry	Dallas	975	11	71.4	− 1.1	95	31	48	4	37	4.49	− 0.93	2.36	0	10	11	17	3	sw.	S. J. Brumfield.
Pocahontas	Pocahontas	1,248	8	69.4	.....	95	25	44	3	35	3.94	.....	1.26	0	10	21	8	2	se.	F. E. Hronek.
Ridgeway	Winneshiek	1,215	14	69.2	− 2.8	95	25	45	4	32	3.14	− 0.58	0.72	0	15	12	15	4	s.	Arthur Betts.
Rockwell City	Calhoun		16	70.5	− 1.8	95	25	48	5†	32	4.40	+ 0.38	1.35	0	8	22	9	0	.....	C. M. Randall.
Sac City	Sac	1,278	36	70.4	− 0.1	92	25	50	3	30	4.58	+ 1.01	1.75	0	12	.....	.....	.....	sw.	E. N. Bailey.
St. Charles	Madison	1,070	11	72.8	− 0.4	98	25	51	4	30	3.07	− 1.26	1.10	0	9	16	9	6	s.	R. D. Minard.
Sigourney	Keokuk	877	16	72.4	− 1.4	96	31	49	2†	33	2.05	− 1.80	0.80	0	7	1	29	1	w.	J. T. Parker.
Stockport	Van Buren	745	10	72.2	.....	97	31	42	4	36	1.53	− 3.53	0.52	0	8	16	9	6	sw.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	23	69.8	− 0.9	92	25	46	3	31	5.33	+ 2.01	2.25	0	8	21	6	4	w.	Prof. W. Ingold.
Tipton	Cedar	807	13	74.2	+ 1.6	97	18	52	3	30	3.75	− 0.91	3.27	0	4	13	12	6	nw.	F. K. Gregg.
Toledo	Tama	856	18	70.4	− 1.6	98	31	44	2†	34	2.51	− 1.19	0.70	0	9	22	5	4	nw.	I. F. Giger.
Wapello	Louisa	588	14	72.0	− 1.5	93	31	51	3†	26	1.79	− 3.21	0.61	0	6	17	11	3	se.	G. M. Schofield.
Washington	Washington	769	30	71.8	− 1.3	96	31	48	3	26	0.89	− 2.82	0.24	0	5	12	12	7	sw.	Wm. A. Cook.
Waterloo	Black Hawk	862	29	69.0	− 1.9	94	31	46	3	33	6.40	+ 2.79	4.00	0	10	17	2	12	e.	Ralph B. Slippy.
Waukee	Dallas	1,039	9	70.5	.....	95	25†	45	4	36	3.12	.....	1.31	0	11	16	12	3	sw.	Samuel F. Foft.
Waverly	Bremer	948	16	69.8	− 1.0	95	31	40	3	37	5.05	+ 2.09	2.15	0	7	23	5	3	w.	Earl C. Moore.
Webster City	Hamilton		7	71.0[e]	.....	95	25	43	3	38	2.85	.....	0.70	0	10	.....	.....	.....	se.	C. D. Carpenter.
West Bend	Palo Alto	1,197	19	69.7	+ 0.1	92	25	43	3	34	4.69	+ 0.75	1.96	0	14	15	14	2	se.	Phil Dorweiler.
Whitten	Hardin	1,036	15	68.7	− 2.2	93	31	44	3	33	2.95	− 0.80	0.75	0	9	.....	.....	.....	sw.	Dr. F. P. Butler.
Winterset	Madison	1,129	21	72.6	0.0	98	25	48	4	33	3.94	− 0.21	1.73	0	10	7	15	9	s.	Dr. R. S. Cooper.
Missouri.																				
Gorin	Scotland	700	27	.....	.....	.....	.....	.....	.....	.....	2.24	− 0.57	0.50	0	10	6	10	15	se.	J. W. Pulliam.
Hannibal	Marion	534	21	74.4	− 0.6	95	28	50	5	29	5.71	+ 2.33	0.98	0	15	15	8	8	sw.	U. S. Weather Bureau.
Louisiana	Pike	500	35	74.3	− 0.3	98	28	41	5	39	8.70	+ 5.79	2.06	0	16	18	11	2	w.	J. T. Farrel.
Mexico	Audrain	797	35	75.3	+ 0.5	98	28	45	4	33	7.39	+ 4.66	1.62	0	13	15	3	13	sw.	J. F. Llewellyn.
Palmyra	Marion		1	74.6	.....	95	28	45	4	33	7.43	.....	2.08	0	13	15	10	6	se.	W. B. Markell.
Steffenville	Lewis	576	19	76.2	+ 0.2	100	29	46	4	42	8.32	+ 5.12	1.78	0	12	12	9	10	ne.	Frank Hall.
Sublett	Adair	1,000	33	74.2	− 0.2	98	31	42	4	37	7.01	+ 3.74	2.00	0	8	8	14	9	w.	Lewis Spriggs.
Vandalia	Audrain	776	2	75.4	.....	98	19	50	4	32	4.37	.....	1.10	0	9	20	2	9	s.	C. B. Ellis.
Warrenton	Warren	865	22	75.4	− 1.2	98	28	50	4	31	4.09	+ 1.35	0.79	0	12	14	3	14	s.	Prof. J. H. Frick.
Indiana.																				
Collegeville	Jasper		13	69.4	− 2.8	95	18†	40	5	31	3.73	− 0.29	1.48	0	7	8	13	10	sw.	Otto Miller.
Knox	Starke	716	7	69.2	.....	90	31	42	5	28	5.88	.....	2.37	0	10	13	13	5	s.	W. R. R. Tatman.
Laporte	Laporte	810	16	68.2	− 3.2	92	31	42	5	32	4.71	+ 1.49	1.20	0	14	9	14	8	sw.	Wm. M. Walton, jr.
Plymouth	Marshall	790	9	67.4	.....	88	25†	42	5	26	5.77	.....	2.62	0	12	10	17	4	sw.	J. W. Siders.
South Bend	St. Joseph	726	19	69.4	− 2.3	92	31	44	3	28	6.46	+ 3.20	2.35	0	12	8	16	7	sw.	Henry H. Swaim.

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois.																				
Aledo	Mercer	738	12	71.2	− 0.8	96	31	46	4	28	1.40	− 1.48	0.58	0	9	2	21	8	se.	William B. Frew.
Alexander	Morgan	670	19	73.0	− 2.0	92	28	45	4	31	8.38	+ 4.84	3.42	0	15	10	9	12	sw.	George H. Hall.
Antioch	Lake	861	11	68.4	− 1.2	95	31	44[a]	5	32[d]	2.34	− 1.54	0.80	0	6	5	16	10	s.	J. C. James.
Astoria	Fulton	650	13	72.0	− 0.3	93	31	42	4	31	3.28	+ 0.06	1.12	0	13	15	8	8	s.	Edward V. Bohl.
Aurora	Kane	678	33	68.6	− 2.3	90	18†	44	5	32	2.74	− 0.76	1.21	0	8	5	13	13	sw.	W. Holden.
Beardstown	Cass	448	....																	Mrs. L. M. Rice.
Bement	Piatt	700	5																	Rev. C. S. Adams.
Bloomington	McLean	840	21	72.4	− 1.5	95	31	43	4	32	5.01	+ 2.28	1.71	0	10	15	8	8	n.	Prof. H. N. Pearce.
Cairo	Alexander	359	40	76.4	− 0.6	93	28	54	4	25	2.28	− 0.65	0.64	0	11	14	9	8	sw.	U. S. Weather Bureau.
Carbondale	Jackson	412	7	77.2	.....	100	28†	47	4†	38	4.68	.....	1.94	0	10	19	9	3	sw.	State Normal University.
Carlinville	Macoupin	663	22	75.6	− 0.3	99	28	45	5	35	2.50	− 0.49	0.51	0	10	18	9	4	w.	Blackburn College.
Carlyle	Clinton	470	27								3.30	+ 0.38	1.01	0	6					Hervey O. Jones.
Chester	Randolph	380	20								8.13	+ 4.87	3.89	0	12					F. A. Gollon.
Clinton	Dewitt	727	2	72.3	.....	93	28†	44	4	34	2.36	.....	0.72	0	10	20	4	7	sw.	J. Frank Ziegler.
Coatsburg	Adams	763	20	74.4	− 0.6	95	25	47	4	32	1.91	− 1.29	0.69	0	9	14	10	7	s.	Dr. J. R. Lambert.
Cobden	Union	656	29	76.6	− 0.8	99	28†	48	5	36	3.18	− 0.54	0.70	0	8	12	10	9	s.	John Buck.
Dakota	Stephenson	929	7	68.2	.....	93	25	40	3	33	4.78	.....	2.25	0	10	2	26	3	sw.	Elmer Smith.
Decatur	Macon	685	21	73.2	− 1.4	95	28	45	4	36	4.12	+ 0.88	1.60	0	13	18	9	4	sw.	Prof. J. H. Coonradt.
Dixon	Lee	725	22	69.2	− 2.9	94	31	42	3	36	5.06	+ 1.78	2.90	0	9	17	11	3	.....	H. U. Bardwell.
Du Quoin	Perry	459	24	76.0	− 1.7	98	29	50	4†	34	7.02	+ 4.20	1.58	0	10	13	15	3	sw.	G. H. Knetzger.
Dwight	Livingston	600	19	71.3	− 1.6	98	18	44	4	32	2.96	+ 0.23	0.89	0	10	9	7	15	sw.	Edward O. Welch.
East St. Louis	St. Clair	481	1								2.82		0.83	0	13					W. McK. Brown.
Edwardsville	Madison	554	13								5.18	+ 2.72	1.10	0	10					W. H. Morgan.
Elgin	Kane	716	5	69.9	.....	93	31	46	3†	34	3.59	.....	1.30	0	9	6	19	6	nw.	Elgin Observatory.
Ewing	Franklin	449	1																	Ewing College.
Fairview	Fulton	733	1								1.90	.....	1.27	0	9					Abram Wilson.
Galva	Henry	842	20	71.0	− 1.6	96	31	43	3	36	1.72	− 1.57	0.79	0	9	14	8	9	sw.	Prof. F. U. White.
Grafton	Jersey	422	19								3.52	+ 0.73	0.96	0	12					R. C. Goodrich.
Greenville	Bond	635	34																	M. S. Oudyn.
Griggsville	Pike	650	27	73.8	− 1.3	93	28	50	4	31	3.43	+ 0.71	1.15	0	8	16	8	7	sw.	George F. Kneeland.
Havana	Mason	475	20	74.4	− 1.5	96	13†	45	4	38	1.87	− 1.07	0.60	0	8	13	5	13	nw.	L. L. Eutenener.
Henry	Marshall	500	24	71.6	− 0.8	97	31	44	4	29	2.24	− 0.74	0.66	0	7	15	9	7	se.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	18	75.2	− 0.8	98	28	48	4	35	2.00	− 1.39	0.55	0	7	19	5	7	s.	Ira L. Woodward.
Joliet	Will	609	21	71.2	− 0.5	100	31	41	5	37	1.70	− 1.68	0.65	0	6	9	12	10	sw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	24	69.0	− 1.8	92	18†	44	3	33	6.61	+ 2.97	2.85	0	13	13	12	6	sw.	George Stevens.
La Grange	Cook	657	20																	Prof. F. E. Sanford.
La Harpe	Hancock	698	33	72.2	− 2.1	95[d]	31	45	4	31[d]	2.55	− 1.22	1.02	0	8	21	9	1	sw.	George E. Campbell.
Lanark	Carroll	883	23	69.1	− 1.3	94	31	39	4	35	6.13	+ 2.20	2.46	0	11	19	6	6	sw.	M. N. Wertz.
La Salle	La Salle	536	7	71.1	− 0.9	95	31	46	4	28	4.35	+ 1.49	2.85	0	6	9	13	9	sw.	U. S. Weather Bureau.
Lincoln	Logan	575	24	73.0[e]	− 0.8	95	31	40[f]	4	36[f]	4.33	+ 1.31	1.31	0	9	16	9	6	ne.	Prof. C. S. Oglevee.
Loami	Sangamon	624	12								4.30	+ 0.64	2.00	0	10	9	5	17	sw.	H. C. Foster.
Macomb	McDonough	700	8								2.37	.....	1.10	0	6					State Normal University.
Manteno	Kankakee	711	1								2.98	.....	0.72	0	11	21	7	3	sw.	J. F. Schmeltzer.
Martinton	Iroquois	633	25	70.9	− 1.2	97	31	43	5	36	4.51	+ 0.93	1.97	0	12	12	10	9	sw.	Joseph H. Peltier.
Mascoutah	St. Clair	425	22	76.6	+ 0.4	99	28	47	4†	36	4.25	+ 1.40	1.30	0	8	19	8	4	se.	George Henrich.
Minonk	Woodford	745	19																	M. H. Pfaffle.
Monmouth	Warren	784	20	71.4	− 2.2	96	31	40	3	35	1.10	− 2.43	0.59	0	4	16	1	14	nw.	Dr. J. C. Hutchison.
Morris	Grundy	518	1	70.7	.....	96	18†	45	3	33	2.59	.....	1.12	0	9	13	7	11	sw.	E. G. Cryder.
Morrison	Whiteside	685	18	69.5	− 2.7	93	31	42	3	30	4.37	+ 0.43	2.95	0	9	15	11	5	sw.	S. A. Maxwell.
Morrisonville	Christian	638	13	74.1[b]	− 0.6	95[b]	25†	45[b]	4†	35[d]	2.56	− 0.43	0.61	0	13	16	12	3	sw.	J. D. Lowis.
Mount Vernon	Jefferson	511	18	74.8	− 2.0	94	19†	50	4†	31	4.68	+ 1.81	1.55	0	10	18	6	7	s.	Theodore P. Stelle.
Nashville	Washington	503	12								3.76	+ 0.89	0.76	0	12					H. M. Potter.
Oregon	Ogle	702	3	69.6[a]	.....	94	31	43[b]	4	30[b]	5.96	.....	2.50	0	7	8	11	12	sw.	Samuel Ray.
Ottawa	La Salle	500	26	71.1[b]	− 1.2	95	18	46[d]	4	32[d]	5.68	+ 2.36	2.25	0	9	8	0	23	sw.	Miss Maude M. Harris.
Pana	Christian	692	26																	A. H. Owens.
Pawpaw	Lee	930	....																	A. C. McBride.
Peoria	Peoria	609	56	72.4	− 0.1	95	31	44	4	29	1.67	− 1.26	0.49	0	10	8	16	7	s.	U. S. Weather Bureau.
Pontiac	Livingston	546	10	72.0	− 1.6	94	31	46	3†	31	4.32	+ 1.51	1.00	0	11	9	11	11	s.	George Butterworth.
Quincy	Adams	481	6	76.4	.....	96	17†	54	4	31	3.97	.....	1.11	0	12					Fred J. Brinkoetter.
Riley	McHenry	956	53	68.0	− 1.4	90	31	47	4	31	4.29	+ 0.78	1.36	0	10	5	14	12	sw.	John West James.
Roberts	Ford	774	1								3.50	.....	1.46	0	11	16	10	5	sw.	R. E. Bradbury.
Rockford	Winnebago	763	20	67.9	− 3.4	91	31	46	4	38	5.56	+ 1.96	2.55	0	9	14	5	12	.....	Hosmer C. Porter.
Rushville	Schuyler	670	21	73.9	− 0.2	94	31	49	4	26	2.04	− 1.06	0.50	0	11	8	14	9	s.	H. F. Dyson.
St. Charles	Kane	700	17	70.2	− 0.9	95	18	45	3†	35	4.21	+ 0.16	1.22	0	9	7	18	6	sw.	Dr. William H. Bishop.
St. Peter	Fayette	500	10	74.2	− 1.5	95	28	49	4	32	5.38	+ 1.84	1.55	0	12	5	22	4	sw.	M. L. Lansford.
Sparta	Randolph	538	26	75.5	− 0.3	98	28	49	4	34	4.50	+ 1.20	1.39	0	8	21	9	1	s.	James A. Caldwell.
Springfield	Sangamon	644	32	74.2	+ 0.2	94	28	51	4	30	2.87	+ 0.07	1.07	0	14	14	7	10	sw.	U. S. Weather Bureau.
Streator	La Salle	626	19	71.6	− 1.4	97	18†	45	4	34	1.88	− 1.33	0.59	0	8	18	6	7	sw.	Miss Lora Sweetser.
Sullivan	Moultrie	530	12	73.6	− 0.6	95	28†	46	4	42	4.57	+ 1.14	1.90	0	8	9	20	2	sw.	C. A. Corbin.
Sycamore	Dekalb	855	32	68.6	− 1.2	97	18	43	3†	37	4.26	+ 0.63	1.45	0	8	16	4	11	sw.	Miss Edna J. Davis.
Tiskilwa	Bureau	798	28								2.29	− 1.75	0.85	0	7					F. I. Smucker.
Walnut	do	717	21	71.4	− 2.1	97	31	46	3†	29	4.63	+ 1.04	3.39	0	9	14	12	5	s.	O. C. Nussle.
Warsaw	Hancock	501	14								3.31	+ 0.43	0.87	0	8					W. R. Kirkbride.
Waterloo	Monroe	719	1								4.35	.....	1.21	0	12					Prof. James E. Raibourn.
White Hall	Greene	573	4	73.4	.....	95	28	45	5	37	4.58	+ 2.32	1.03	0	13	20	6	5	ne.	Frank Dillman.
Windsor	Shelby	681	13	73.8	− 0.3	95	31	46[a]	5	34[a]	5.08	+ 1.35	1.44	0	12	11	15	5	sw.	Herbert Rose.
Winnebago	Winnebago	900	25	69.0	− 1.8	93	18†	45	3†	33	8.11	+ 4.37	3.70	0	7	13	9	9	s.	Frank Osborn.
Yorkville	Kendall	584	25	69.2	− 1.4	95	31	43	4	36	3.47	+ 0.15	1.70	0	8	13	11	7	w.	Herman A. Grimwood.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota.																																	
Amenia	Red					1.23	.30	.40	.23	.28			T.	.28				.85					T.						.24		.36		4.17
Bottineau	Mouse					.21	T.						.40		.02	.12	.10	.25		.06	.62	.05							.20	.01	.10		2.14
Bowbells	do				.30	.09			.15									.24		.78	1.50								.30	.10	.05		3.51
Cando	Sheyenne				.12		.78		.16				.02		.50			.48		.15	.30									.53		.10	3.14
Crosby	Mouse				.46			.12					.03				.13	.30	.17	*	1.62							T.		.13			2.96
Devils Lake	Sheyenne				.74	.14	.06	T.	.34			T.	.08		.05	.06	.46	.02	T.	.37	.07	T.		.18			T.	.06		.25	.11	T.	2.99
Donnybrook	Mouse				.46	.06	.17	.12					T.				.31	T.	T.		.78	T.						.15	.08				2.13
Dunseith	do				.28			.31				.01			.22		.20	.12		.20	.38		.01					.19	.01	.04	.33		2.30
Edmore	Sheyenne																																
Fessenden	James					.18	.05	.30	.01	.01			.25			.03		.44		1.07	.13	.11	T.	T.	.01				T.	.02	.22		2.83
Forman	Sheyenne				.23	.05		.17		.10			.40				.56		T.		.02									1.10		2.63
Grafton	Red					.17	.05	.12					.04					.45	.02		.04	.03	.05						.39	.01	.89		2.26
Granville	Mouse				.39	.34		.05									.24			.46	.26						.01	.02	.66				2.43
Hannah	Pembina				T.		.19		.20			T.			T.			.21		.31	.36	T.		T.	T.			.57		.56		T.	2.40
Hansboro	Red				.12	.03	.60							.06				.34		.35	.37								.26	.30			2.43
Hillsboro	do				.19	1.21	.05	.10	.20				.40				.05	1.47					.12					.10	.45	.07	.28	.33	5.02
Lakota	Sheyenne																																
Langdon	Pembina					.12		.81		T.			T.				.52	.03	.07	.92	.12								.61		.51		3.71
Larimore	Red					.60	.16	.18	.19	.01			.30	.05	.03			1.10	.02			.02							.55		.20		3.41
Lisbon	Sheyenne					.06	T.	.18		.12			.25	.09				1.22				.10		.03						T.	.47		2.52
McKinney	Mouse				.50	.33		.18									.26			1.20			T.				.23	.10				2.80
McLeod	Sheyenne				.05	.15		.22	.60				.41				.40	.32			.07								T.		.62		2.84
Manfred	do				.07	.70	.48	T.	T.			T.	.12			.15	.38	.02		1.15	.19	T.	.26					T.		.18	.16		3.86
Mayville	Red				.21		1.40	.60	.11	.69	.20			.30				.10	.70										.75	.13	.20	.44	5.83
Milnor	do				T.	.37	.19	.05	.30			T.	.27				.50	.22			.03			T.					T.	T.	.99		2.92
Minot	Mouse				.08	.48		.05					.23					.22		.20	.20								.10				1.56
Minto	Red						.28	.18					.21				.09	.57		.03	.08	.02		.02				.51	.02	.14	.65		2.80
Oriska	Sheyenne				.34	.39	.05	.10	.08				.53			.03	.70			.03									T.	.08	.34	.39	3.06
Park River	Red				T.	.25	.17	.20					.05				.07	.35	.01	.15	.12							.50	.07	.15	.74	.02	2.85
Pembina	do					.08	.28	.18		T.			.04			T.		.10	.08	T.	.20	.12			T.	T.		.42			.55		2.05
Power	Sheyenne					.40		.73					.50				1.25													.40		.42	3.70
Pratt	Mouse																																
Towner	do				.31	.05		.04				T.	.08					.18		.51	.37						T.		.65	.39		2.58
University	Red				.10	.61	.01	.03	.37	.01			.30		.01		.06	.38		T.	T.	.02	.04		.04			.58	.12	.06	.08	.04	2.86
Wahpeton	do				.20		.02		1.02	.05			.15					.35					T.				T.			1.30	.02	3.11
Walhalla	Pembina					.24		.32	.03	.04			T.								.47		.02	.01	.23			.28	.74	.17	.50		3.05
Westhope	Mouse				.16	.03			.03						.42		.12	.02		.30	.37	.10						.08	.03	.03			1.69
Willow City	do				.28	T.	T.	.10				T.	T.		T.		.29	.05	T.	.23	.80	.15	.02					.05		.43	.08		2.48
Minnesota.																																	
Albert Lea	Mississippi					.20		T.	.20		T.						.10	.80	.50	.50			T.								.65	T.	2.95
Alexandria‖	do																																
Angus	Red					.28			.98				.23		T.			.49		.01	.14	.02						.04	.14		.18	T.	2.51
Bagley	do					.22			.10		.10					.03	1.30	.05				.08			.02			.60				.40	2.90
Baudette	Rainy																																
Beardsley	Minnesota				.03	.46		T.	.08	.04			.62			T.	.18		.09	.44	T.		T.	.02					T.		.84	.03	2.83
Beaulieu ‖	Red																																
Bemidji ‖	Mississippi					.16	.32		.64	.06					.01			.88		.02	.04					.02			.62		.27	.25	3.29
Bird Island	Minnesota				T.	.65	.12	.02	.11	.05	T.						.53	.42	.77	.71	.10			T.					T.		.41	.08	3.97
Brainerd	Mississippi					.19	.34	.08	.21	.30	.07			.41															.14		1.50	.10	3.34
Caledonia ‖	do						.20	1.50	.26	.15	.46			.14				.31	.05	.53	.03		.04			.05			T.		.61		4.33
Campbell ‖	Red					.60	.12	.03	.50	.06	.10		.12	.04				.25		.05		.05	T.						T.		1.65		3.57
Cass Lake ‖	Mississippi					.34	.50		1.05	.10								.70	.05	T.	T.	T.				.16		T.	.72	T.	.32	T.	3.94
Collegeville	do					.05	.18	.10	.01	.15	.01			.08			.55	.92	.14	.03		.07	T.						.46		1.50	.47	4.72
Crookston ‖	Red					.41	.19	.02	.10	.20			.13	.32				.84	.02	.02			.04						.63		.70		3.62
Detroit ‖	do					1.10	.70	.50	1.40	T.	T.			T.		T.		.65				T.							T.		.70		5.05
Ely	Rainy						.06			.04				11				.22						.08	.13			.77		.04		1.45
Fairmont (near)	Minnesota					.50		.33	1.87	*		24		.80			.15	.13	.43	1.15					.02		T.			1.15	.04	6.81
Faribault	Mississippi																																
Farmington	do					.15	.30	.24	.54	.20	.14			.40			.25	.60	1.18	.42		.12							T.		1.58	.92	7.04
Fergus Falls	Red				.15	.62	.57	.75	.36	.03			.06				.20	.14						.03				.01	.01	T.	1.22		4.15
Fort Ripley ‖	Mississippi							.40	T.		.65			.03				.15					T.					T.	T.	1.90	.05	3.18
Fosston	Red					.38	.03	.11	.37				.20				.08	1.13	.03	.04	.03	.03			.10		.66	.04	.01	.53	.02	3.79
Glencoe	Mississippi				1.00			1.50									.50		.50	.16									1.00		4.66
Grand Meadow	do					T.	.17	T.	.56	T.	.18	T.	.21	.04			.08	.54	.22	.66	.06					.06			T.		.95	T.	3.73
Gull Lake Dam	do					.10	.44	T.	.25	.18	.21		T.	.07			T.	.21						.07				T.	.16		1.93	.03	3.65
Hallock	Red					.50	1.00	.05	.03				.05					.50		.25	.10	T.	T.	T.	.20	T.		.40	.25	.05	.90	.20	4.48
Halstad ‖	do					1.15	.10	.06	.10	.33				.37		.02		.84				.01	.02						.25		.36		3.61
Hinckley	St. Croix								.05	.15	.07						.05	.85	.05	T.											1.43	2.65
International Falls	Rainy					.85	.35	.15					.15	.09				.65		T.	.09	.10		.15	.09			*	.82		.47		3.96
Itasca State Park	Mississippi					.08		.65	.53									.90			.04	.26						.87	.08		.46	.07	3.94
Lake Crystal	Minnesota					.46		.24			.20		.03					.20		1.12	.26										.68	.28	3.47
Leech Lake Dam	Mississippi					.09	.27		1.84	.10			.03					.46	.06			.04			.07			.52		.40	.03	3.91
Littlefork	Rainy					.20	.64	.01		.01			.87					.60		.05	.11	.05	.04	.17	.05		.10	.70		.32	.01	3.93
Long Prairie	Mississippi																																
Lynd	Minnesota					.41	.25	.04		T.		.30		T.			.87	.73	.46	.50			T.			.08				.40	.20	4.24
Mankato ‖	do					.55	.08	.42	.04		.25		.07					.18	.70	.76										.61	.11	3.77
Milaca	Mississippi																																
Milan	Minnesota				.04	.61		.18	.02	.02			.40				.32	.02	.45	.18					.02			.43		.32	.36	3.37
Minneapolis	Mississippi					.11		.62	T.	.21	T.		.01				.65	.09	.97	.21	T.		T.				.50	.06	.26	1.76	.11	5.56
Montevideo ‖	Minnesota					.94	.08	.02	.17	.T			.01	T.				1.24	.45	.38			.01						.20	T.		3.50
Moorhead ‖	Red				.64	1.31		.52	.10			.04	.19				2.33	.01		.01		.01					.01		.28	.08	.31	5.84
Mora	St. Croix					.85	.70		.34	.15							.21	1.00	.07				.01						.31		1.67	.50	5.81
Morris	Minnesota				.22	1.05			T.	.09			.35				.24		.14	.39	.05	T.							T.		.75	.16	3.44
New London	Mississippi					.95		1.30			.27		.41				1.22	.38		.40								.89			.82	.65	7.29
New Richland	Minnesota					.33		.25	T.	.09	.10		.23					.62	.15	.64	T.			T.	T.				T.		.91		3.32
New Ulm	do					.67	.10	T.	.76		.15		.03		T.			.65	.65	.43					T.		.02				.81	.10	4.37
Osakis	Mississippi					.26	1.12	.15	.88	.11	.03		T.				.04	.18		.04											1.97	.18	4.96
Park Rapids ‖	do					.07	.30	.18	.88	.05	.10			.33				.50	.02				.10						.67	.02	.64	.02	3.88
Pine River Dam	do					.15	.64		.18	T.	.08							.10		.20					.18			1.40		1.25		4.18
Pokegama Falls	do					.10	.18	T.	.65	.19			T.		.11	T.		.29			.03		.01			.04	.02	.35		.33		2.30
Red Lake	Red				.15		.55	T.					T.					2.00			.20	.05					T.	.50			.20	3.65
Red Wing ‖	Mississippi						.28	1.18	.10	.24	.08	T.		T.				.28	.62	.40	T.		T.							1.45	.02	4.65
Redwood Falls	Minnesota																																
Reeds Landing ‖	Mississippi						.30	.02	.85	.10	.20	.10		.05				.46	.48	.20	.10		.04								1.30	.14	4.34
Rochester ‖	do						.60	.03	.73	.01	.25	.02	.02	.10				.50	.02	.76			.03								1.10	.13	4.30
Roseau	Red					.34	.09	.03	.18				.19				.05			.03		.01		.10	.05	.02		.50	.40	.03	.43		2.45
St. Charles	Mississippi					T.	.57	.12	1.02		.34						.09	.37	.08	1.02		.02									1.13		4.76
St. Cloud	do					.02	.28	.02	T.	.17	.04						.13	1.57	.17			.13							.35		1.39	.52	4.79

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Minnesota—Contd.																																
St. Paul	Mississippi					.13		.21	.03	.16			T.				.68	.12	.53	.24			T.					.33	.11	.13	1.66	.07	4.40
St. Peter	Minnesota					.58		.42	.47		.23						.18	.32	.87	.55											.70	.35	4.67
Sandy Lake Dam	Mississippi					.34	.33			.65				T.				.19			T.		.15							.95		.84	.05	3.50
State Sanatorium	do					T.	.25	.05	1.60	.46				.01					.45			.15							1.55		.60		5.12
Stillwater ‖	St. Croix						.02	.09	.06	T.	.21							.83	.49	.41		T.	T.						1.04		2.12	T.	5.27
Taylors Falls	do					T.	.78	.44	.40	.31	.32		T.				1.90		.17				T.					.30			1.40	.19	6.21
Thief River Falls ‖	Red						.15						.20						.25		.30									.40			.30	1.60
Tracy	Minnesota																																
Warren	Red						.01	.02							.50	.22		.32			.31							.50				.20	2.08
Warroad	Rainy					.40	.25	.15	.45				.08	.02				.22				.12		.18		.12		.80		.08	.40		3.27
Winnebago ‖	Minnesota					.60	.01	T.	.10		.25		.10	.30				.40	.30	.50			T.	T.	T.	T.		T.		T.	.75	.30	3.61
Winnibigoshish	Mississippi					.28	.08	2.62	.04						T.			1.05			.22					.12		.32			.26		4.99
Winona	do					T.	.21	.15	.22	T.	.66		T.	.01			.05	.23	.02	.30		.05	.03						T.		1.12		3.05
Worthington ‖	Des Moines					.12		.30			.03		.24					.17	.43	.30											.61	.22	2.42
Zumbrota	Mississippi					T.	.25	T.	1.30	.02	.03						.12	.32	.74	.95											1.60	T.	5.33
South Dakota.																																
Milbank	Minnesota					.39	.21	.12	.02	.29	.04		.37	.02			.02	.09	.55	.38			.02					.05			.52	T.	3.09
Sisseton	do					.14	.04	.02		.02			.67	.10				.25		.31		.12	.01								.65		2.33
Wisconsin.																																
Antigo	Wisconsin	.14					.22	.08	.33	1.69	1.94							.85	.03	T.						T.		1.20		.58	.82	7.88
Barron	Chippewa					T.	2.22	1.46	.22	.20	.63						T.	1.29	.07									.82		.96	.70	8.57
Beloit	Rock	.13					T.	.24	.45	T.	.66	.02		.03				.35		.55	.76						T.	T.		T.		3.19
Big St. Germain Dam.	Wisconsin	.04	.09				.90	.09	.15	1.80	1.13							2.29	.03		T.		.10		.20			.59		.42	.06	7.89
Brodhead	Rock	.11						T.	1.00		.70	.10		.07					.18	.77	T.		T.				.06	.10		T.		3.09
Burnett	do	.44	.03				.02		.45	.50	.51	.02	T.					.03	.80	.10	.01	T.	.06					.27	.01	.58	T.	3.83
Cottage Grove	do	.25		T.		T.	T.		.19	.11	.24	T.		.03				.02	.58	.26	.03		.06							.09		1.86
Darlington	do						.10		.70		.50			.10					.80	1.50												3.70
Deerskin Dam	Wisconsin	.08	.18				.89	.10	.45	1.60	1.08	.03						1.52	T.	T.	.50		T.	T.	.48		T.		.85		.31	T.	8.07
Delavan	Rock	.14				T.	T.	.21	.64	.16	*	.37							.18	.28	.14		.01						.09				2.22
Dodgeville	do								.75		.80			.25				T.	.40	1.50		T.										3.70
Downing	Chippewa						.45	.40	.50	.10	.20						T.	.90	.65									2.00		1.35	1.20	7.75
Eau Claire	do	.04				.04	.44	.81	.89	1.10	.60			.02			.05	.15	.42	.15	T.		.06						2.00		1.67	.39	8.83
Grand Rapids ‖	Wisconsin	.08					T.	1.18		2.04	.71	.16						.45	.31	.29		T.	.04						1.74		.74	.25	7.99
Grantsburg	St. Croix						1.85		.22	.40	.30						T.	2.10	.12	T.									.70		.90	.67	7.26
Hancock	Wisconsin	.05					.25		2.03	1.10	.90							.15	T.	.31	T.				.09				1.78		1.65	.03	8.34
Hatfield	Black						.72	.36	.87	.18	.57							.36	.59	.20									.45		2.11	.25	6.66
Hayward	St. Croix					.10		.02	.12	1.65	.43							1.60	.05	T.				.10				T.	.42		1.18	.43	6.10
Hillsboro	Wisconsin	.04				T.	.16	.26	.06	.21	.63	.10	.18	.15			T.	.10	.07	.39			.10		T.				2.07		4.52	
Koepenick	do		.10				.50	.60	.50	1.82	2.23	.30						1.50	.20	.10			.10				.10		.80		.60		9.45
Lac du Flambeau	Chippewa																																
La Crosse	Mississippi					T.	.35	.04	.33		.49	T.	.08	.02			T.	.22	.07	.37	T.		.03		.10			T.		1.17	.06	3.33
Lake Mills	Rock	.53				T.	.02	T.	.52	.03	.36	.07	T.	.04				.03	.12	.16			.05					.07	.02	.12		2.14
Lancaster	Mississippi						.15	.11	.21		.58	T.	.10	.23				.07	1.05	1.72												4.22
Long Lake	Wisconsin	.07					1.17	.18	.05	1.17	.72							1.80	.04	T.	.01	T.	.01	.10	.24			.69		.29	.15	6.69
Madison	Rock	.78				T.	.02		.43	T.	.37	T.	T.	.03		T.	T.	.18	.54	.42			.02					T.		.37		3.16
Mather ‖	Wisconsin	.34					.20	.35		.11	.79	.18		.03				.21	.66	.56	.63		.07	.02		T.	T.	.10		2.06	.26	6.57
Mauston	do	.30					.45	.18	.05			.10	.75					.10	.70	.22								.05		1.60	.15	4.65
Meadow Valley	do					.07	.95	.13	.07	.10	.55						T.	.32	.64	.11			.06					.39		1.90		5.29	
Medford	Black						.65	.85	.70	.16	1.25							.80	.10				.10					1.30		1.08	.70	7.69
Merrill	Wisconsin		.20				.38	.60	.40	1.10	1.77							1.00	.60									.90		.78	.65	8.38
Minocqua	do	.02					.78	.25	.19	1.75	1.17	.08						2.09	.02	.02	.05			.30					.58		.55	.07	7.92
Mondovi	Mississippi	.02				.13	.50	.21	.70	.06	.70	.02					.04	.47	.82	.33	T.		.04						.15		1.72	.02	5.93
Mount Horeb	Rock	.25				T.	.07		.34		.80			.07		T.		.17	1.00	.43			T.			.10				.20		3.43
Muscoda ‖	Wisconsin						.20		.04	.21	T.	.60		.43				.30	T.	.03	.71			T.		T.				.30	.03	2.85
Neillsville	Black						.78		1.12		.62							1.15	.63	.15								2.75		1.13	.12	8.45
New Richmond	St. Croix						.21	1.41	.41	.11	.18			.20			21	.62	.53		.04		.02					1.83		1.95	.13	7.85
Osceola	do					.35		.40	1.10	.55			T.				.73			.03	T.	T.					.20	.50		1.50	.33	5.66
Park Falls	Chippewa						.73	.19	.16	1.47	.88	T.						1.64		.03	T.	T.		T.	.52			.60		40	.08	6.70
Portage	Wisconsin	.76				T.	.02		.32	1.33	.82	T.	.07	.10				.04	2.25	.21			.03					.11		.73		6.79
Port Edwards	do	.26	.03				.71	.16	.10	.32	.72							.75	.30	.16			.06					1.73		1.00	.19	6.49
Prairie du Chien ‖	Mississippi						.26			.26		.36		.70				.06	.10	3.70	.82									.26	T.	6.52
Prairie du Sac	Wisconsin	.21				T.	.01	.01	.19	.30	.82		.05	.28				.25	.20	.60			.05							.54		3.51
Prentice	Chippewa	.05					1.54	.16	.12	.58	1.12			.08				1.66	.21	T.		T.		T.		T.	T.			.74		.80	.14	7.20
Rhinelander	Wisconsin	.01					1.30	.30	.04	2.65	1.50			.01				1.11	.13	.02	.05				.01	.06				.55		.43	.15	8.32
Shullsburg	Mississippi					.03	.15		.68		.72		.11	.13				.02	.08	1.93													3.85
Solon Springs	St. Croix					.60		.30	.40	.60								.70		T.	T.		.10		T.			T.	.40	.10	.50	.90	4.60
Spooner	do					.03	1.75	T.		1.26	.19	.02						1.96	.06				T.						.55		1.03	.37	7.22
Stanley	Chippewa	.06				.04	.58	.79	1.00	.08	.87							.60	.40	T.			T.						1.35		1.28	.30	7.35
Stevens Point	Wisconsin																																
Sugar Camp Dam	do	.06				.86	.86	.30		1.70	1.60							1.74	.05		.10		.10		.25			.37		.30	.13	8.42
Trout Lake	do		.04				.67	.44	.02	1.54	.67							1.03			.17	T.	T.	.43			T.	.55		.28	.02	5.86
Twin Lakes Dam	do						1.00	.68	.09	2.26								1.40		T.					1.25		.75			.86	8.29
Valley Junction	do	.07				.03	.62		.79	.37	.71			.13			.04		.35	.80			.22		T.			T.		2.39	T.	6.52
Viroqua	Mississippi						.25	.02	.10		.58		.07	.50				.29		.56			.02		T.			T.	T.	.90		3.29
Vudesare	Wisconsin			.34	.34		.75	.30		.95	.60							.40	T.	.20	.02		T.	.30	.93			.63		.50	T.	6.26
Watertown ‖	Rock	.31	.30					T.	T.	.34	.08	.40		T.						.06	.35	.10		.04				.10	T.		.45	2.53
Waukesha	Fox	.15	.01	T.			.01	.28	.55	.13	.23		T.							.32	.88		.03					.05		.50		3.11
Wausau	Wisconsin	.04	T.				.21	.06	.63	.90	2.05	.05		.03				.79	.30									.94		.97	.39	7.36
Weyerhaeuser	Chippewa	.05				.05	1.98	.37	.12	.85	.47							1.24	.22									1.34		1.05	.53	8.27
Whitehall	Mississippi	.10				.10	1.00	.20	1.10		.70	T.						.20	.50	.50			T.							2.20	.10	6.70
Iowa.																																
Albia ‖	Des Moines					T.	.10		.03	1.10	.01		.44		.59	.01	.10	.05			.01								.33			2.77
Algona	do					.28		.25	1.31	T.	.18		1.21	.22			.10	2.10	.28	.42					T.					.36		6.71
Alta ‖	Raccoon	.15				.50	.52	.46	.09		.04		1.07				T.	2.45	.03	.63		.02								.17		6.13
Amana	Iowa					T.	.01	T.	.76		T.		.25	T.				.03		.70	.01				.01			T.		T.		1.77
Ames	Skunk					.64			.11	.08	.04	.69	.28				.12	1.89	T.		T.				.29							4.14
Baxter	do					.50		T.	.25	.02	.01		.59	.09			.07	1.40		.21					.04			.02				3.20
Belle Plaine	Iowa					.09	.02		.48	.01	.05		.22					.16		1.00					T.		T.					2.03
Belmond	do					.37		T.	1.19	.05	.17		1.20				T.	.78	.02	.78				.30		T.	T.			.17	T.	5.03
Bloomfield	Mississippi					.10			.05				.50	.31			.74											.03				1.73
Bonaparte	Des Moines					.10	.12	.14	.14				.58	.25			.78				.05							.28				2.44
Boone ‖	do					.51	.15		.04		.02			.48				1.74	T.	T.					.21			.02				3.17
Britt	Iowa					.15		.98	.33	.08	.12		.94	.84			.05	1.31	.42	.26			T.		.03					.15	T.	5.66
Buckingham	Cedar					.21			.16	.03	.04		.45				T.	.55		.48					.09							2.01
Burlington ‖	Mississippi						.10	.16	.04	.28			.17	.12	.23		1.16	.10														2.36

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Iowa*—Continued.**																																	
Carroll ‖	Raccoon	.21				.15	.10	.18	T.				.79	.97		.20	2.16												T.				4.76
Cedar Rapids ‖	Cedar						.08		T.	.61	T.	T.	.20	T.					T.	T.	.93	.98					T.			T.			2.80
Charles City	do					.07	.08		.28		.03		.93	.08			.05		.68	.18	.75				.05					.61	.28	.86	4.33
Clear Lake	do					.03	1.40	.44	.51				.75	.55					.11	.38	.92										.40		5.49
Clinton	Mississippi						.06	.07	.03	T.	.60		.12						T.		3.17	.19							T.				4.24
Columbus Junction	Iowa					.07		.18	.25	T.	T.		.28	.60					T.		.82								T.				2.20
Davenport	Mississippi					T.	.09	.36	.02	T.	.03		.13	.04					T.		2.10		T.						T.	T.			2.77
Decorah	do					T.	.42		.12		.21		.14	2.10			T.	.40	T.	.85					.08					.41	.21	4.94
Delaware	do					T.	.47		.12		.30		.25	.68				.15		4.28	.52				.02					T.			6.79
Des Moines	Des Moines					.35		T.	.28	.01	.02		.30	.13		T.	.61	.73		.74					.03		.03		T.			.29	3.52
Dubuque	Mississippi					T.	.20		.50	.01	.46		.15	.22				.01	3.55	1.68			T.		T.					T.	.01		6.79
Earlham	Raccoon	T.				.20			.27	T.			.41	.10		T.	1.17	.10		1.32									.16				3.73
Elkader	Mississippi					T.			.66		.30		.40	.75				.40		2.75			T.		T.						.15		5.41
Elma	Wapsipinicon					.15	.08	.03	.20	T.	.08		.22	.55			.02	.47	.81	.82					.08						.25	.15	3.91
Estherville ‖	Des Moines					.25			1.10		.10		.85	.05				.45	.35	.30					.05						.54	.35	4.39
Fairfield	Skunk					.08			.08				.30	.25			.22			.08									.11				1.12
Fayette	Mississippi							T.	.21		.15		.57	1.10				.70	1.50	3.48			T.		.12					.02	.05		7.90
Forest City ‖	Cedar					.20	.05	.15	.30		.08		.64	.88				1.28		.98					.10						.18	T.	4.84
Fort Dodge ‖	Des Moines					.25	.22		.40		.08		.80	T.				.60		.07											T.		2.42
Fort Madison	Mississippi					T.		.40	.31		.10		.61	T.		T.	1.70			T.									.15				3.27
Gilman	Iowa					.24			.19				.45		T.			.96		.86					.05				.03				2.78
Grand Meadow	Mississippi					.02	.28		.12		.30		.25	.60				.51	1.03	1.82			.01		.05					T.	.27		5.26
Grinnell	Iowa					.31			.72		.04		.30	.20			.08	.40		.90			T.		.05				T.				3.00
Grundy Center	Cedar					.25			.24				.80	.05			.07	.46	2.50					.05						T.			4.42
Guthrie Center	Raccoon	T.				.26		T.	.01	T.			.54	.23		.01	1.21	.32		.08					T.		.13		.03				2.82
Hampton	Cedar				.18	.05		.35		.24	.03	1.55	.03				.10	.65	1.07						.12					.05	T.	1.00	5.42
Humboldt	Des Moines																																
Independence	Wapsipinicon					.05			.41	.01	.08		.55	.60				.45		4.62	.03				.03						.03		6.86
Indianola	Des Moines	.04				.12	T.		.32				.30			T.	.55	.40											.45				2.18
Iowa City ‖	Iowa						.04		.17	.41		.02	.22		T.			T.		1.64	1.12					T.			T.				3.62
Iowa Falls ‖	do					.20	.10	T.	.52		.07	T.	.93	.02				.51	.10	.36		T.		T.	.07	T.		T.		T.	.03		2.91
Jefferson	Raccoon	.06				.40			.10	.16			.48	.38			.21	2.32					T.		.03		.09		.02		T.		4.25
Keokuk	Mississippi					.03	.08	.10	.29	.25	T.		.38	.2		.36	.26			.02	.33								.16				2.50
Keosauqua ‖	Des Moines						.09	.27	.02	.05			.60	.03	.49		.85	.35				.04								.23				3.02
Knoxville	do	T.				12			.38	T.	.03		.28	.32			.26	.04		.25	.08				T.		T.		T.				1.76
Lacona	do	.02							.08	.03			1.00	.50			.54	.10		.02			.10				.02						2.44
Lansing	Mississippi						.26		.04	.12	.09	.34		.47				.13		1.20	.09		.02								.60	.03	3.39
Le Claire ‖	do						.12	.10		.04	.14	.21	T.	.14	T.				T.	.88	.53			T.						T.			2.16
Marshalltown ‖	Iowa					.09	.07		.01	.20	.01	T.	.83	.03				.70	.01	.20	.04	.01		T.	.08	.03			T.				2.31
Mason City	Cedar					.18	1.85		.40				.72	.70			.02	.75	.42	1.55					.15					.22			6.96
Monroe	Skunk					.18			.24		.05		.29	.19			.24	.86		.48	.05				T.		T.						2.58
Mount Pleasant	do						T.	T.	.09				.46	.82			.30	T.		.08									.09				2.00
Muscatine ‖	Mississippi						.12	.38	.03	.06	.06	.02	.15	.02	.03					.82	.80												2.49
New Hampton	Wapsipinicon					.06	.16		.33		.08		.48	.68			T.	.45	T.	2.42			.02		.10					T.	.10	.16	5.04
Northwood	Cedar					.17		.11	.20	T.	.09		.22	.60			.07	1.03	.09	1.10			T.		T.					T.	.60		4.28
Olin	Wapsipinicon					T.	.50		1.25		.17		.30	T.				T.		4.75	.75										T.		7.72
Osage	Cedar					.20			.42				.25	1.10				.73	.84	.72					T.					.39			4.65
Oskaloosa	Des Moines					.09			1.29	T.	T.		.53	.22			.09			.49									.08				2.79
Ottumwa	do					T.			T.			.50		.30		T.	.20			T.					T.		T.		.21				1.21
Pella	do					.15			.30	.02	T.		.41	.13		.05	.12			.29	.01		T.		T.		T.		.06				1.60
Perry	Raccoon	.06				.58			.72	.05			.24	.22			.30	2.00		T.	T.				T.		.19		.07				4.49
Plover	Des Moines																																
Pocahontas	do					.55	T.	.05	.70				1.26	.02			.11	.75		.02						.03					.45	T.	3.94
Ridgeway	Mississippi					.04	.45	.03	.11		.25		.15	.57			.03	.33	.14	.52			.03		.05				T.	T.	.33	.11	3.14
Rockwell City	Raccoon					.65		.50		.10			.65	.45				1.35		.35								.35					4.40
Sac City	do	.06				.47		.96	T.	.07	T.		.57	.01			.25	1.75		.15					.04					T.	.10	.15	4.58
St. Charles	Des Moines	.37				.28		.01	.44				.33			.01	1.09			.44							T.		.10				3.67
Sigourney	Skunk					.12			.60				.30	.10		.10	T.			.80	.03				T.				T.				2.05
Stockport	do					.12			.03		T.		.41	.34		T.	.52			.01	.02								.08				1.53
Storm Lake	Raccoon					.90	T.	.57			.01		.98	T.			.24	2.25	T.	.22										T.	.16		5.33
Tipton	Cedar						.23		.25	T.			T.							2.85	.42												3.75
Toledo	Iowa					.07			.18	.37			.33	.06				.70		.65					.10				T.		.05		2.51
Wapello	do							.50	.10	T.			.21	.18		.19				.61													1.79
Washington	Skunk					.08			.22				.24	.17						.18													0.89
Waterloo ‖	Cedar					T.	.05		.66	.14	.34	.02	.50	.28				.38	.03	4.00					T.						T.		6.40
Waukee	Raccoon	.02				.32		T.	.31	.01			.18	.09		.01	.77	1.31		.05					T.		.05		T.				3.12
Waverly	Cedar					.05			.75	.03	.07	.70	1.30						2.15														5.05
Webster City	Des Moines					.38			.65	.10	.05		.70	.07			.15	.41		.15					.19								2.85
West Bend	do					.15	.17	.11	.34	.05			.74	.18			.14	1.82	.68	.06					.02				.02		.21		4.69
Whitten	Iowa					.38			.30	.13	.03		.48	.13			.75			.60					.15								2.95
Winterset	Des Moines	.07				.25	.01		.44				.44	.06		T.	1.73	.03		.71									.20				3.94
Missouri.																																	
Gorin	Mississippi					.05	.25		.26				.50	.11		.02	.28				.01					.40		.36				2.24
Hannibal	do	.09	.16			.02	.25	.51	.57	.01	.01		.87	.15	T.	.81					.80	.01			T.	.50		.95				5.71
Louisiana	do	.05					.10	.44	.66	.14		.03	.55	1.40	.23	.80					.10	.05	.08			2.06			2.01				8.70
Mexico ‖	do	T.		.04			T.	.73	.41	.42	.86		.02	1.62	.38		.64				.01	.43				.73			1.10				7.39
Palmyra	do	.12		.17			.49	.51	.09	.09			.89	.69		2.08					.30	.19			.50				1.31				7.43
Steffenville	do	.20	T.			.10	.20	.40	.80	T.	T.		.05	.72	T.	1.78	.70				1.75					.92		.70	T.				8.32
Sublett	Chariton					1.06			.25	T.		1.25		.10		.35	1.00			T.							2.00		1.00				7.01
Vandalia	Mississippi						.50		.32				1.10		.50	1.10				.20					.20			.45					4.37
Warrenton	do			.36				.45	.31	.28	.19			.39	.24	.04	.79					.28			.50			.26					4.09
Indiana.																																	
Collegeville	Iroquois						T.	.27		.72	.66	.24								.17	1.48		.19						T.				3.73
Knox	Kankakee						T.	.04	.33	1.19	.51	.11		.16					2.37	.08	.37	T.	.72			T.			T.				5.88
Laporte	do		.02					.09	.64	1.20	.44	.48		.12					1.02	.12	.24	.05	.12							.03	.14		4.71
Plymouth	do							.27	.31	.64	.17	.20		.57	.13				2.62	.13	.17	T.	.45						.11				5.77
South Bend	do							.07	.34	2.35	.80	.51		.04					1.66	.04	.16		.15						.25	T.	.09		6.46
Illinois.																																	
Aledo	Mississippi					.03	.02	.11	.11	.06	.05		.15	.29		T.				.58									T.				1.40
Alexander	Illinois					T.		.10	.21	.22	.16		.53	1.63	.04	.22	.14	.01				.04	T.	.16			.01	3.41		T.	1.50			8.38
Antioch	do								.32	.80	T.	.15	T.							.12	.80			T.							.15		2.34

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Station	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Illinois—Continued.																																	
Astoria	Kankakee					T.	T.	.24	.01	T.	.06		1.12	.11	.02	.05	.70				.54		.04			.25			.10	.04			3.28
Aurora	do	.21						.12	.48	.16	.38	.18							T.	1.08	.13						T.						2.74
Beardstown ‖	do																																
Bement	Mississippi																																
Bloomington	Illinois					.02	T.	.11	1.71	.99	.46		T.	.10	.04		1.41				.05		.12										5.01
Cairo	Mississippi		T.	.13				.10	.24	.28			.64	T.		.03	.05	.21			.36	.03	.21										2.28
Carbondale	do		T.	.49					.79	1.15	.02		.99		.62		.04				.08	.44											4.68
Carlinville	Illinois			.10					.15		T.	T.	.33	.22	.16	.26	.15				.30	T.											2.50
Carlyle	Mississippi			.28						.60			.68		1.01						.35												3.30
Chester ‖	do			.80				.16	.02	.72	.06			.86	.42		.48					3.89	.52				.06	.02					8.13
Clinton	Illinois					T.	T.	.08	.44	.30	.15		.01	.17	.09	T.	.72				.27		.13							T.				2.36
Coatsburg	Mississippi					T.		.15	.01	.04	.12		.69	.34		.20	.31				T.						T.			.05				1.91
Cobden	do			.70					.31	.39			.64		.14						.21	.30	.49				T.						3.18
Dakota	do					.01	.04	.27	1.30	T.	.70	.02		.06				T.		2.25	.10							T.		.03			4.78
Decatur ‖	Illinois					T.		.04	.32	.28	.19	.17		.08	.70		.32	.07			1.60	.11		.20		T.			T.	.04			4.12
Dixon ‖	Mississippi	.12					.05	.27		.05	.15	.48	T.	.05						2.90	.99			T.									5.06
Du Quoin	do	T.		.60				T.	.06	1.58			.91		.65				T.		1.17	1.36		.19		.47		.03					7.02
Dwight	Illinois	.04					T.	.10	.24	.10	.37	.10		.02			T.			.89	.87		.23										2.96
East St. Louis ‖	Mississippi			.67				.07	.03	.02	.02			.55	.16	.01					.12	.29					.83	.03		.02			2.82
Edwardsville	do			.38						.27			.89	.77	.14						.74	.24				.51	1.10		.14				5.18
Elgin	Illinois	.18					T.	.26	1.30	.16	.36		T.						.01	.84	.33								.15				3.59
Ewing	Mississippi																																
Fairview	Illinois					.01	T.	.34	.01	T.	.04	.01	.19	.02		T.	1.27				.01		T.			T.			T.				1.90
Galva ‖	do						.02	.27	.22	.06	.04	.22	T.	.04	.06		T.			T.	.79												1.72
Grafton ‖	Mississippi		.04	.48				.22	.06		.36					.36	.08		.32		.22	.17				.96			.25			3.52
Greenville	do																																
Griggsville	Illinois			T.		T.	T.	.10	T.	T.	T.		.57	.29	.16	1.15	T.				.45	T.					.21		.50			3.43
Havana	do					T.	T.	.18	T.	T.	T.	T.	.21	.12		.03	.60				T.		.10			.60			.03				1.87
Henry	do						.07	.47	T.	.66	.44	.07	T.	.05						.48													2.24
Hillsboro ‖	Mississippi			.18				T.				.15		.55	.12		T.				.35					.35			.30			2.00
Joliet	Illinois	.05				T.	T.		.08	.62	.23			T.					T.	.65	.07									T.		1.70
Kishwaukee	Mississippi					.01	.01	.48	1.33	.02	.69	.06	.01	.01						2.85	1.11		.02						.01				6.61
La Grange	Illinois																																
La Harpe	do					T.	.03	.72	.03	.18	T.		.53	.04		.03	.99			T.	T.								T.				2.55
Lanark	Mississippi					.03	.08	.07	2.36	.02	.74	.02	.02	.04				T.		2.46	.29		T.						T.		T.		6.13
La Salle	Illinois	T.					T.	.33	.36	.10	.35		T.	.36		T.	T.			2.85	T.		T.						T.				4.35
Lincoln	do					T.		.05	1.22	.09	.44		.02	.62	.15	T.	.91	T.			.53		.30				T.		T.				4.33
Loami	do			T.		T.	T.	.08	.05	.10	T.		.29	.13		T.	.40	.03			T.	T.	.15			T.	2.00		T.	1.07			4.30
Macomb	do							.72	.01	T.	.04		.30	T.	T.		1.10				.20								T.				2.37
Manteno	do	.12	.04					.16	.09	.44	.18	.07		.26							.72	.38		.52			T.		T.				2.98
Martinton ‖	do		.06					.02	.05	.62	.05	.67		.09	.63		T.	.05			.21	1.76	T.		.30		T.						4.51
Mascoutah	Mississippi								.35	.06			.99		.93						.29	.33				.50	.80						4.25
Minonk	Illinois																																
Monmouth	Mississippi										.59			.35	.06			.10															1.10
Morris	Illinois	.09						.06	T.	.25	.22	.03	.02	.08						1.12	.72												2.59
Morrison	Mississippi						.10	.13	.03	.38	.56	.02	.16	T.						2.95	.04		T.										4.37
Morrisonville	Illinois			T.		T.		T.	.09	.02	.05		.14	.27	.34	T.	.04	.07			.32	.04	.24			T.	.37			.57			2.56
Mount Vernon ‖	Mississippi			.45						.08	1.55			.42	.40						.78	.72		.08			.05			.15			4.68
Nashville	do			.36				.01	.06	.25	.04		.62		.67	.03	T.				.36	.26			T.		.76			.34			3.76
Oregon	do							.22	.65	T.	.53	.20								1.80	2.50		T.					.06				5.96
Ottawa	Illinois							.30	.07	.26	.40	.05	.02	.15						2.18	2.25												5.68
Pana	Mississippi																																
Pawpaw	Illinois																																
Peoria	do					.02		.28	.05	.29	.13		.03	.14			.49			T.			.18			.06							1.67
Pontiac	do						T.	.15	.30	.30	.28	.30	.05	.38			.24			.76	1.00		.56				T.						4.32
Quincy ‖	Mississippi	.02		.01			T.	.35	.04	.06	T.		.19	.39	.55		.62					1.11					.19		.44			3.97
Riley	do	.92				T.		.23	.07	.29	.46	.04							.04	1.36	.87		.01				T.		T.				4.29
Roberts	Illinois					T.	T.	.05	.17	.09	.35	.19	.12	.43	.03		.24			T.	1.46		.37										3.50
Rockford ‖	Mississippi	.32	T.				.01	.09	.19	1.26		.50	T.	.03					T.	2.55	.61			T.					T.				5.56
Rushville	Illinois					T.		.25	.03	.08	.03		.40	.50		.13	.48				.03					.03			.08				2.04
St. Charles	do	.09	T.					.21	1.22	1.08	.28	.03		.02						1.00	.28		T.						T.				4.21
St. Peter	Mississippi			.50				T.	T.‡	1.55	.35	.35	.28	T.	.65	T.	.47		T.		.63	.10	.10			T.	.15			.25	T.			5.38
Sparta	do			.60				.02	.20	.55			.72		.68			T.			T.	1.39	.34			T.							4.50
Springfield	Illinois					T.	.01	.01	1.07	.17	.09		.12	.18		.14	.12				.19	.01	.14			.21				.41				2.87
Streator ‖	do							.05	.01	.59	.17	.43		T.	.03		T.	T.		.15	.45			T.									1.88
Sullivan	Mississippi									.27	T.		.33	1.31	.08		.05				1.90						.57		T.	.06			4.57
Sycamore ‖	do	.32	.17					.25	.20	.15	T.	.60								1.45	1.12												4.26
Tiskilwa	Illinois						.10	.60	.05	.20	.39				.10					.85													2.29
Walnut	Mississippi						.04	.13	.01	T.	.35	.01	.07	.59						3.39	.04												4.63
Warsaw ‖	do						.24		.31	.14			.65	.52			.87			.24													3.31
Waterloo	do	T.		.83				.04	.49	.23	T.		.20		.60	T.	.02				T.	1.21	T.	.03		.35	.32			.03			4.35
White Hall	Illinois			.12		T.		.17	.10	.07	.08		.42	.54	.10	.93					.40	.03					.64			.98			4.58
Windsor	Mississippi					T.		T.	.22	.35			.05	.65	.19		.10	.10	T.		1.24	.02	.24			T.	1.44			.48			5.08
Winnebago	do					T.	T.	.77	2.29	T.	.71	T.		T.					.06	3.70	.56		.02										8.11
Yorkville	Illinois	.02					T.	.10	.30	1.40	.40								.25	.75	.25												3.47

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.															
	Bottineau. §§		Devils Lake.		Lisbon.§§		Minot.§§		Pembina.§§		Collegeville.		Crookston.§§		Grand Meadow.		Montevideo.§§		Moorhead.		New Ulm.§§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	76	47	69	50	74	47	73	46	76	44	71	52	70	46	74	48	76	49	74	46	71	54	69	54	71	53	77	50
2....	70	45	67	42	73	43	68	45	78	38	70	48	67	43	71	44	74	46	71	42	73	50	66	36	68	47	67	42
3....	68	44	66	43	72	37	70	40	79	40	69	45	71	45	74	45	74	43	72	41	74	47	69	37	68	53	75	43
4....	63	48	65	45	70	47	70	46	81	46	72	50	76	47	73	41	74	48	71	46	78	47	69	46	71	50	76	46
5....	77	53	74	56	81	55	78	47	70	50	66	54	70	56	66	51	76	56	77	56	71	52	62	54	66	56	64	52
6....	79	51	75	51	79	53	75	50	76	50	80	61	73	58	82	54	83	57	76	56	83	57	69	56	80	57	69	56
7....	76	44	71	55	80	54	78	51	78	52	75	60	79	60	81	60	80	62	80	59	81	62	69	54	77	63	72	57
8....	77	49	69	55	71	52	75	53	72	49	71	56	71	59	73	58	76	67	71	56	76	59	67	55	69	62	70	56
9....	78	53	72	52	76	52	77	49	82	48	65	58	75	54	69	57	72	59	75	54	77	60	68	56	67	59	72	55
10....	80	50	76	50	83	49	80	48	81	48	76	57	76	53	67	58	78	56	78	54	72	61	76	55	70	60	80	54
11....	89	57	84	58	86	50	84	49	83	52	82	58	83	57	79	54	84	54	84	56	86	55	79	47	83	58	81	58
12....	73	57	73	57	82	55	80	48	82	54	83	63	78	60	81	57	87	63	80	59	87	64	80	57	82	61	78	60
13....	69	46	71	54	80	48	70	56	70	53	78	58	74	55	80	64	83	54	78	54	76	59	77	57	79	65	76	59
14....	73	52	69	52	75	50	71	55	77	50	72	57	69	54	76	55	79	53	72	54	79	54	70	56	77	58	71	52
15....	75	48	73	49	81	49	78	54	75	53	72	49	74	55	79	51	76	53	76	54	75	56	70	46	73	53	67	50
16....	71	50	71	56	69	55	70	55	78	53	72	53	77	56	68	52	67	55	71	57	69	56	73	45	72	56	73	55
17....	69	55	66	56	79	48	70	55	63	53	77	55	65	58	81	58	84	57	71	58	93	60	66	53	84	57	66	58
18....	65	57	65	54	76	58	68	55	84	55	70	57	70	59	81	67	86	62	74	59	89	65	63	55	76	62	64	57
19....	66	56	64	58	81	60	62	57	61	60	72	55	67	59	82	61	82	61	74	58	79	62	64	50	79	60	66	50
20....	74	55	70	57	75	57	75	55	76	52	74	58	70	58	75	56	79	56	71	57	79	59	74	54	77	61	71	58
21....	77	48	77	54	83	50	78	53	72	51	78	57	78	55	76	60	80	54	82	55	76	58	77	57	77	58	78	57
22....	76	48	70	50	76	56	76	53	68	48	70	59	68	53	74	59	62	57	72	54	77	61	73	54	72	59	65	55
23....	84	51	84	51	89	51	90	54	68	44	78	48	81	47	75	48	89	52	84	50	85	51	73	45	76	51	71	57
24....	80	51	80	53	93	55	82	54	72	45	85	65	77	50	87	65	90	57	84	56	90	53	80	52	87	68	72	58
25....	73	55	81	53	96	55	78	55	68	46	90	60	88	55	93	62	95	60	94	54	95	57	87	55	91	67	86	60
26....	73	43	70	49	78	48	71	48	70	44	85	59	70	55	79	60	78	55	71	54	76	59	81	56	78	60	82	55
27....	67	45	66	50	78	46	65	47	71	52	76	53	73	50	78	49	79	50	75	50	83	52	72	40	77	55	67	46
28....	68	53	67	53	68	55	71	53	77	52	73	52	70	55	81	61	67	56	70	57	70	56	65	53	68	58	68	53
29....	71	52	67	53	68	43	70	53	74	48	68	48	69	50	64	57	73	52	74	50	75	58	68	40	69	54	68	48
30....	68	44	67	50	73	55	71	48	71	50	71	58	69	56	81	60	70	58	72	50	72	61	69	55	75	59	65	55
31....	68	45	66	50	67	42	73	41	74	38	66	53	71	46	81	63	62	54	69	46	83	60	62	41	65	59	65	45
Mns..	73.3	50.1	71.1	52.1	77.8	50.8	74.1	50.7	74.4	49.3	74.4	55.4	73.2	53.7	76.8	56.0	77.9	55.4	75.5	53.3	79.0	56.9	71.2	50.7	75.0	58.0	71.7	53.5

Date.	Wisconsin.														Iowa.											
	Eau Claire.		Grantsburg.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids.§§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	71	54	73	43	70	55	71	54	70	53	64	46	67	58	75	50	77	55	72	52	80	60	78	63	73	57	81	59
2....	69	48	72	38	66	48	69	50	65	53	63	41	66	46	76	47	74	51	72	46	75	53	74	54	70	52	76	55
3....	68	51	68	38	66	47	68	49	65	53	62	37	63	41	75	45	73	48	73	44	72	51	73	56	69	48	72	54
4....	71	42	75	41	73	43	71	45	69	50	64	31	68	40	75	50	75	49	73	44	73	48	74	52	70	47	74	52
5....	64	51	68	43	69	49	64	51	67	51	68	40	68	50	68	55	70	51	65	54	70	54	72	56	66	52	71	54
6....	77	56	78	50	75	56	79	56	74	55	68	53	65	55	84	57	82	57	82	57	80	58	80	63	76	58	84	58
7....	76	59	76	58	79	60	78	61	75	62	65	51	70	50	80	66	81	59	80	61	75	64	78	61	78	64	80	64
8....	72	59	70	56	72	59	71	60	73	60	67	55	70	60	76	59	74	65	73	58	78	64	72	64	72	63	73	65
9....	70	60	67	57	75	62	75	62	73	62	67	60	68	62	72	57	79	63	72	56	79	65	76	57	76	62	79	63
10....	65	60	70	49	69	60	66	62	64	59	64	58	72	59	76	61	73	60	71	60	70	61	79	62	66	61	76	60
11....	77	61	84	54	75	59	76	62	71	61	69	56	72	59	82	53	78	61	80	56	80	64	83	58	74	61	86	61
12....	77	57	81	60	75	56	76	58	74	59	74	59	75	53	84	62	88	62	84	59	86	64	87	65	81	59	87	66
13....	79	65	80	48	80	56	83	61	80	67	77	61	80	62	82	63	85	65	82	61	87	71	84	70	83	66	85	71
14....	77	55	75	40	84	56	79	56	77	62	77	52	75	53	81	55	86	61	80	56	87	63	84	62	82	60	87	68
15....	72	51	76	41	76	55	75	58	70	58	70	40	74	48	79	57	80	62	77	59	80	63	81	63	72	60	75	66
16....	73	50	75	45	71	48	74	53	71	52	68	47	70	48	70	58	76	57	72	56	74	60	72	60	74	55	72	60
17....	82	56	74	54	87	56	88	61	85	59	68	55	70	54	87	62	94	58	87	64	91	65	91	65	90	63	92	65
18....	78	62	76	54	86	62	81	69	85	66	67	56	70	58	87	69	96	69	87	70	93	74	91	73	92	67	92	74
19....	75	64	72	56	71	61	83	66	81	65	66	54	65	60	85	63	89	67	84	65	89	66	90	70	83	67	93	75
20....	78	60	78	57	82	62	85	65	81	68	74	58	80	59	83	60	85	66	82	62	87	67	83	68	84	66	82	69
21....	76	58	80	55	80	57	76	60	77	63	74	51	75	55	78	60	77	64	75	58	82	66	79	63	77	64	84	69
22....	73	60	73	54	80	60	74	59	71	58	71	53	72	59	77	61	78	64	74	56	78	64	81	63	73	61	84	63
23....	72	59	72	42	74	48	76	52	73	54	68	48	69	50	82	60	83	55	79	50	80	57	87	57	77	56	84	60
24....	87	62	88	59	86	62	88	65	86	62	85	56	85	60	89	67	94	56	88	65	91	70	91	74	88	69	91	71
25....	89	63	89	56	96	64	95	64	89	67	88	58	88	60	92	60	97	78	92	60	93	73	97	64	92	67	93	74
26....	85	64	80	58	89	68	76	58	77	60	88	54	72	63	82	64	85	69	77	56	91	67	85	66	83	64	91	68
27....	73	58	75	41	74	44	76	51	71	55	70	31	70	42	80	54	82	58	78	52	79	61	82	60	75	59	80	71
28....	69	59	76	56	70	55	88	61	86	59	66	53	70	44	84	69	91	53	84	62	88	68	87	69	89	66	93	61
29....	71	53	73	42	70	52	69	60	69	57	72	38	70	46	74	61	73	63	68	59	74	64	75	62	68	60	85	66
30....	77	55	73	53	71	54	79	59	85	58	72	50	70	52	86	65	95	62	88	63	92	65	92	68	89	63	90	68
31....	75	60	65	48	70	64	84	65	88	66	68	53	70	59	89	62	98	65	92	66	95	75	96	66	92	71	93	76
Mns..	74.8	57.2	75.2	49.9	76.2	56.1	77.1	58.5	75.5	59.2	70.5	50.2	71.6	53.7	80.3	59.1	82.8	60.6	78.8	57.6	82.2	63.4	82.4	63.0	78.5	60.9	83.4	64.7

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
	Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon.§§		Peoria.		Springfield.		Winnebago.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	81	63	71	46	87	67	.....	.....	76	56	81	64	84	59	80	58	82	60	76	54
2	77	61	69	53	86	68	.....	.....	74	52	77	49	79	61	76	56	77	58	70	50
3	74	52	66	43	70	59	.....	.....	70	47	74	40	73	55	71	48	72	54	70	45
4	76	50	68	47	71	54	.....	.....	72	46	75	44	74	50	73	44	74	51	72	45
5	73	50	68	42	76	57	.....	.....	72	50	68	48	78	50	71	52	73	54	71	46
6	86	58	78	51	84	61	.....	.....	79	57	83	54	82	54	81	57	83	58	77	53
7	81	64	74	59	82	68	.....	.....	72	64	75	58	83	63	76	64	79	65	76	62
8	75	66	82	62	79	69	.....	.....	82	61	77	62	79	66	80	65	82	66	77	58
9	81	61	73	65	75	63	.....	.....	77	63	80	60	78	66	77	63	81	61	76	63
10	77	59	74	58	82	59	.....	.....	69	60	69	58	83	57	72	59	74	59	66	58
11	87	61	74	61	87	70	.....	.....	75	61	82	59	88	63	80	62	85	64	72	60
12	86	66	81	56	83	68	.....	.....	82	60	85	61	83	68	81	63	81	66	84	54
13	91	69	87	66	89	67	.....	.....	84	69	80	67	88	66	85	69	90	69	86	66
14	83	68	79	60	86	69	.....	.....	85	65	86	63	84	67	85	65	83	68	83	56
15	74	66	76	56	87	70	.....	.....	82	60	82	62	86	68	83	63	78	68	71	58
16	77	65	75	54	85	70	.....	.....	73	58	71	52	89	68	73	56	74	61	74	47
17	91	68	88	58	88	73	.....	.....	90	64	90	57	90	68	89	66	90	66	91	58
18	91	73	85	66	91	75	.....	.....	94	70	92	57	92	72	92	71	92	73	93	71
19	93	76	80	65	91	77	.....	.....	86	66	91	65	94	73	89	70	92	75	81	65
20	79	70	85	65	91	69	.....	.....	85	65	84	68	87	70	86	70	83	72	83	65
21	83	65	80	64	80	71	.....	.....	83	67	86	64	83	70	84	64	87	68	79	63
22	85	61	78	60	85	68	.....	.....	78	61	80	60	85	63	84	60	84	63	74	60
23	86	59	70	54	84	69	.....	.....	77	57	82	59	82	60	80	56	82	63	75	52
24	90	70	87	65	86	66	.....	.....	90	65	92	67	90	62	93	64	91	65	90	61
25	94	74	88	68	88	72	.....	.....	91	71	93	71	87	71	92	70	93	70	92	67
26	91	65	86	63	85	71	.....	.....	89	63	93	69	93	67	92	66	91	70	86	66
27	80	65	70	60	85	68	.....	.....	75	58	82	57	80	65	79	59	77	61	76	55
28	95	66	84	52	93	68	.....	.....	89	61	86	64	93	62	93	64	94	64	88	58
29	87	68	71	57	92	76	.....	.....	71	65	82	65	93	69	80	66	87	68	78	60
30	89	72	83	60	89	74	.....	.....	90	65	92	63	93	70	92	66	90	68	90	60
31	92	75	92	70	91	74	.....	.....	95	73	96	73	94	71	95	73	93	75	93	70
Mean	84.0	64.7	78.1	58.3	84.8	68.1	.....	.....	80.9	61.3	82.8	59.9	85.4	64.3	82.7	62.2	83.7	64.6	79.7	58.3

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST 1912.

DISTRICT No. 6, MISSOURI VALLEY.

MONTROSE W. HAYES, District Editor.

GENERAL SUMMARY.

In Montana and Wyoming cool, wet weather prevailed through most of the month. In Colorado and all that portion of the drainage area to the east of the mountain States the first 15 or 20 days were cool and showery, but the latter part of the month was quite warm, and there was generally less rain than during the first of the month. There was some frost in the mountain States, North Dakota and the western counties of South Dakota, but the staple crops appear to have suffered very little, if any. Damaging hail occurred over small areas in northern Montana, western South Dakota, and in Missouri. Damage by lightning was comparatively light, when the rather large number of heavy rainstorms is considered, and it was confined chiefly to the lower part of the district. Thrashing was retarded by rainy weather in the Dakotas and Iowa, and excessive local rains in South Dakota and northwestern Iowa washed out railroads, interfered with traffic, and caused an overflow of the Missouri River in and around Pierre, S. Dak.

TEMPERATURE.

In the eastern counties of Kansas and Nebraska and in Iowa and Missouri the mean temperatures for the month were very near to the normal. North and west of this region they were considerably below the normal, the greatest departure being in the northwestern part of the district. There was a large range in temperature in all sections of the district. In each of the States, except Montana, one or more stations had temperatures of 100° or higher, while in Nebraska and the country to the north and west of that State there were localities in which the temperature fell to 40° or lower. In Montana, Wyoming, and Colorado there were some stations at which the minimum for the month was considerably below the freezing point, but they were in very elevated regions, or were in some other manner favorably situated for the occurrence of low temperatures. The few warm days in Montana and Wyoming formed no well-defined period; they were scattered irregularly through the month, the greater portion of which was abnormally cool. In the remainder of the district hot weather followed the low temperatures of the first 15 or 20 days. For St. Louis there is a trustworthy record of temperature extremes for each day of the year for the last 77 years; it shows that on August 3 and 4, 1912, the minimum temperature in St. Louis was as low as it has ever been on corresponding days since 1836, and on the 5th it was 1° lower than any previous record. There was a very gradual rise in the temperature after the 5th, but no seasonably warm weather prevailed during the first 15 days. The last 10 days, in the territory to the east of the foothills, were hot; the highest temperatures were on the 25th–28th.

PRECIPITATION.

The precipitation was irregularly distributed. In the northern half of the district it was as a rule considerably above the seasonal average, but there were scattered localities with less than normally occurs in August. In the southern half the irregularity was more pronounced, and some stations had a monthly excess of more than 2 inches, while adjacent localities had a corresponding deficiency. Heavy local rains occurred in each of the States comprising the district; the greatest number doubtless occurred in South Dakota and northwestern Iowa. The heaviest precipitation for the entire month was 9.44 inches at Alton, on the Solomon River, in north-central Kansas. The greatest amount in 24 hours was 4.87 inches, also at Alton.

The only snow reported was a trace at a very elevated station in Lewis and Clark County, Montana.

RIVERS.

Some of the small streams were high for short periods on account of excessive local rains. These rains, however, had no material effect upon the larger streams, the stages of which were quite normal.

ELECTRIC INDUCTION BY CLOUDS DURING THUNDERSTORMS.

By HARRY A. FRISE, Assistant Observer, United States Weather Bureau.

A phenomenon illustrating the electro-inductive action of clouds during thunderstorms was observed at Sheridan, Wyo., on the afternoon of July 11, 1912, and while known to have occurred on two previous occasions, its relation to cloud induction was more closely observed on this last one.

The sky during the day had been mostly cloudy, cumulus and strato-cumulus prevailing; the winds were light and variable, being mostly northerly; the temperature was moderate, with a maximum of 79° about 3 p. m. About 5 o'clock in the afternoon a bank of dark cloud along the horizon to the northwest apparently was moving toward the station. At 5.30 p. m. the cloud mass had advanced so that a third of the sky was overcast with dark cloud masses, stretching from southwest to northeast. Lightning at this time occurred mostly from the cloud directly north of the station, while a rain curtain fell from the entire front of the cloud bank. In order that the advance of the storm might be observed to the best advantage, the roof of the observatory, a two-story structure, was chosen as a suitable point. From the roof of the building at 5.55 p. m. the front of the storm, then within 2 miles of the station, was marked by a cloud of dust, stirred up from the hills and roadways

by the outrushing surface wind characteristic of this class of storms, and stretching at right angles to the direction of advance. On stepping to the roof from the penthouse, a peculiar sound was noticed coming from the anemometer and wind-vane support. Having had experience with electrostatic machines, the sound was instantly referred to the escape of electricity from the iron points about the support. The air was calm just before the rush of surface wind, so that conditions were favorable for observing the phenomenon.

The nature and cause of the sounds were made apparent by their association with lightning discharges from dense cloud masses directly north of the station, which were at this time about 3 miles distant (distance computed by time required for report of discharge to reach station).

It was observed that the sounds ceased for a moment, and then gradually increased in intensity, and that the cessation of sound was coincident with discharge between the earth and clouds. During the short periods in which the sounds increased in intensity it was evident that the stress between the cloud and the earth was becoming greater and that the cessation of sound was owing to the relief of stress which the discharge afforded.

The same phenomenon was observed on the night of February 18, 1912, during a heavy fall of snow, when lightning was seen to the southeast of the station, but no thunder was heard. The sound on this occasion was identical with that of the recent thunderstorm, with this difference: During the snowstorm there was no variation in the intensity, nor was there any cessation of sound during the time it was observed. As the purpose of going to the roof during the snowstorm was to locate the part of the sky in which lightning occurred, the length of time the sound continued was not obtained, nor was the nature of the sound, at that time, referred definitely to electric discharge. Although darkness prevailed no illumination was observed about the iron support.

The frequency of discharge during the recent storm was not so great as to preclude the detection of time intervals. To one familiar with the sounds produced by a static machine, those about the iron support may be made intelligible by comparison with the discharge between the electrodes when they are separated by about one-sixteenth inch, and the plates are revolved moderately.

The observatory is a brick structure, with stone foundation, and soil almost wholly gravel, on the first bench on the west side of the valley of Little Goose Creek. The roof of the building is flat and covered with pitch and gravel. The walls of the building extend above the roof 3 to 5 feet, forming a parapet. The parapet is capped with galvanized sheet iron, painted. The iron support for the wind vane and anemometer is set into the roof of the penthouse, and is braced by three iron guy rods, imbedded at the foot in the pitch and bolted to the wood boards beneath. The topmost point of the support is an arrow-shaped piece of iron, capping the shaft on which the vane turns, and is about 24 feet above the main roof.

The recent phenomenon was observed for about eight and one-half minutes, during which time five discharges of lightning from the cloud occurred, and there were as many cessations of sound from the iron support, but on account of heavy rain and hail it was necessary to leave the roof at 6.03 p. m. so that the exact time the phenomenon lasted is not known.

This phenomenon has probably been observed by others and has undoubtedly occurred on other structures having connections with moist earth, and high points favorable to electric discharge, but an account of it is believed to be of interest in furnishing evidence to confirm the modern theory of protection of buildings from lightning.

A SEVERE STORM AT CONCORDIA, KANS.

By J. W. BYRAM, Observer, United States Weather Bureau.

A severe thunderstorm swept over Concordia and its vicinity on the night of August 5–6. The first thunder was heard at 8.16 p. m., and the last at 7.34 a. m. The storm came from the northwest. The wind attained a velocity of 51 miles per hour, from the northeast, for the five minutes ending at 8.50 p. m., and during this time 1 mile was blown at the rate of 60 miles per hour.

Four buildings in the business section of Concordia were unroofed; the Presbyterian church was unroofed and otherwise damaged; the Barons House, the principal hotel, was unroofed and one of its large chimneys was blown down, causing great damage to the interior of the building. The building in which the Weather Bureau office is located was partially unroofed, and the office rooms were flooded. Large plate glass fronts in three storerooms were blown in, and a number of barns in town and in the surrounding country were destroyed. The main tent at the Chautauqua grounds was blown down and a number of persons injured slightly. The wind destroyed shade trees in all portions of the town, and orchards in the surrounding country were damaged or destroyed by wind and hail. The barn on the Nallieux farm, 5 miles southeast of Concordia, was destroyed, and a strip of country about 1 mile wide, extending south from this farm to the county line, was devastated by hail. No hail fell in Concordia.

TABLE 1.—*Climatological data for August, 1912. District No. 6, Missouri Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Arapahoe	Fremont		2								1.04		0.40		6	23	8	0	sw.	Edward L. Seyan.
Barnum	Johnson	5,500	7																	Thos. Freeguard.
Basin	Bighorn	3,862	13																	O. J. Robertson.
Bennett	Carbon		3																	Chas. C. Young.
Big Creek Station	do	7,500	1	57.0[k]		81[k]	22	32[k]	4	47[k]	1.62		0.40	0	6	5[k]	12[k]	3[k]	sw.	U. S. Forest Service.
Burns	Laramie	5,400	2	65.3		91	24	43	8	37	3.40		1.08	0	10	11	17	3	ne.	E. W. Bastian.
Casper	Natrona	5,101	3								2.10		0.29	0	10	19	8	4	sw.	M. C. Cook.
Centennial	Albany	8,074	9	58.3		81	29	39	19†	35	0.29		0.06	0	10	16	10	5	w.	Louis A. Gregory.
Cheyenne	Laramie	6,088	41	65.4	− 0.4	89	26	41	9	38	1.44	− 0.03	0.62	0	9	8	20	3	nw.	U. S. Weather Bureau.
Chugwater	do	5,282	11	63.8	− 1.8	91[a]	26	39[a]	9	45[a]	2.65	+ 1.50	0.95	0	8	19[a]	6[a]	5[a]	e.	A. H. Woolever.
Clark	Park	4,320	7	66.2		90	24	42	30	32	1.90		0.60	0	9	17	8	6	w.	Chas. A. C. Snow.
Cody	do	5,000	5	63.6		87	12†	36	30	42	1.35		0.40	0	8	15	10	6	w.	D. A. Tinckom.
Crazy Creek	do	6,828	1	50.4		80	9	24	30	53	1.26		0.25	0	15	17	2	12	w.	Jas. Smith.
Dome Lake	Sheridan	8,821	4	53.2		74	27	32	19	31	3.16		0.80	0	10	16	14	1	w.	Abe Mills.
Douglas	Converse	4,793	3																	Henry C. Miller.
Dubois	Fremont	6,909	5	55.2		80	9†	31	30†	35	1.46		0.45	0	9	12	16	3	w.	F. H. Welty.
Eatons Ranch	Sheridan	4,600	7	64.5		84	10†	41	19	38	1.64		0.92	0	4				nw.	F. A. Eaton.
Echeta	Crook	4,200	7								1.16		0.44	0	4	23	4	4	s.	M. R. Hunter.
Elk Mountain	do										1.67		0.46	0						Wm. Richardson.
Encampment	do	7,322	3	60.4[i]		85[i]	26	36[i]	19	41[i]	1.79		0.40	0	11	5[i]	16[i]	1[i]	sw.	U. S. Forest Service.
Ervay	Natrona	6,400	3	60.9		90	26	30	20	49	0.62		0.16	0	6	16	10	5	sw.	Frank Jameson.
Fort Laramie	Laramie	4,270	34	68.2	− 3.1	100	25	43	9	49	1.39	+ 0.45	0.55	0	6	17	10	4	w.	John Hunton.
Foxpark	Albany	9,015	2	49.4[d]		74[d]	27	24[d]	22	44[d]	0.70		0.25	0	5	8[d]	18[d]	1[d]	w.	U. S. Forest Service.
Germania	Bighorn	4,312		64.0[e]		90[e]	25	39[e]	20	42[e]	2.64		0.80	0	7	15[e]	5[e]	6[e]	nw.	J. W. Peper.
Gillette	Crook	4,546	6	64.7		87	26	43	20	41	4.62		3.26	0	8	20	6	5		S. D. Perry.
Horse Creek	Fremont			48.0[l]		75[l]	9	25[l]	20	39[l]	2.06		0.56	0	10	6[l]	7[l]	6[l]	w.	U. S. Forest Service.
Hunters Station	Johnson	8,000	6	53.4		79	26	31	20	37	2.94		0.70	0	12	16	7	8	w.	Do.
Hyattville	Bighorn	4,632	13	66.7		96	25	38	20	46	2.20		0.75	0	4	18	4	9	w.	Wm. Booth.
Jireh	Converse	5,050	2								1.62		0.52	0	11	16	14	1	w.	P. L. Ford.
Kirtley	do		8	64.0		87	29	40	9†	40	2.22		0.94	0	10	18	10	3	nw.	D. M. Zum Brunnen.
Kirwin	Park	9,187	3					25	20		2.46		0.80	0	12	14	13	4	w.	C. L. Tewksbury.
Knowles	Crook	4,500	3																	Geo. A. Knowles.
Lagrange	Laramie	4,510	2	66.9		93	25	45	9	40	5.31		4.11	0	9	21	9	1	s.	Owen Shupp.
Lander	Fremont	5,372	20	64.1	− 1.6	92	26	38	19	44	0.52	− 0.02	0.24	0	7	15	13	3	w.	U. S. Weather Bureau.
Laramie	Albany	7,188	21	60.8	− 1.0	87	26	38	22	40	1.52	+ 0.43	0.53	0	5	25	3	3	se.	University of Wyoming.
Leo	Carbon	6,878	10																	C. A. Cowdin.
Lolobama Ranch	Park	7,052	8	53.2		80	24	27	30	44	0.98		0.30	0	6	18	10	3	w.	Mary E. Painter.
Lovell	Bighorn	3,825	6	64.6[e]		92[e]	25	40[e]	11†	47[e]	0.57		0.55	0	2	12[i]	9[i]	1[i]	w.	R. Fred Harrison.
Lusk	Converse	5,007	21	64.0	− 2.5	91	25	36	7	42	1.10		0.65	0	4					D. E. Goddard.
Manville	do	5,050	2								1.15		0.45	0	11	7	23	1	nw.	L. C. Stoddard.
Moorcroft	Crook	4,111	8	68.0		95	25	45	20	42	2.98		1.23	0	11	9	17	5	s.	C. T. McCampbell.
Moore	Albany	6,000	11	62.4	− 2.1	91[b]	26	37[b]	9	43[b]	2.40	+ 0.99	0.61	0	10	5[b]	18[b]	6[b]	w.	Edwin Moore.
Newcastle	Weston	4,319	5	68.5		97	24	44	8	38	1.21		0.28	0	7	17	6	8	w.	Dr. S. W. Johnson.
Pathfinder	Natrona	5,735	6	66.2	− 2.9	90	26	43	8	38	0.83	+ 0.12	0.28	0	7	15	10	6	sw.	U. S. Reclamation Service.
Pinebluff	Laramie	5,038	9	66.5		90	29	43	9	38	5.30		1.58	0	15					C. L. Beatty.
Pine Ridge	Crook										1.93		0.52	0	9	12	17	2		J. E. S. Altaffer.
Powell	Park	4,376	4			92	25	40	20	41	0.99		0.54	0	7	19	4	8	nw.	U. S. Reclamation Service.
Rawlins	Carbon	6,748	10	63.4	− 1.0	89	26	40	19	43	1.33	+ 0.77	0.66	0	10	20	8	3	w.	E. J. Ehrenfeld.
Riverton	Fremont	4,960	3	64.4		94	26	31	7	51	9.12		4.05	0	4	21	7	3		F. H. Allyn.
Rockypoint	Crook										2.22		0.64	0	7	14	10	7	n.	P. Woxen.
Saratoga	Carbon	6,785	14								1.54	+ 0.51		0						G. Fred. Clark.
Seven Mile Creek	do			55.0[i]		77[i]	28	32[i]	8	35[i]	1.25		0.47	0	7	11[i]	10[i]	0[i]	w.	U. S. Forest Service.
Sheridan	Sheridan	3,790	17	63.6	− 0.9	89	24	41	31	43	1.18	+ 0.50	0.55	0	11	15	8	8	se.	U. S. Weather Bureau.
Shoshone Dam	Park	5,385	14	64.9		87	25	32	9	32	1.45		0.43	0	9	13	8	10	w.	U. S. Reclamation Service.
Soldiers Home	Johnson	4,635	20																	Joel C. Smiley.
South Pass City	Fremont	7,873	10	53.0		80	26	26	19†	46	1.60		0.91	0	8	10	9	12	sw.	John Sherlock.
Sundance	Crook			63.4		86	29	44	20†	36	3.40		0.80	0	7	13	8	10	e.	G. W. Ashdown.
Thermopolis	Fremont	4,350	8	68.0		97	25	38	28	44	1.61		1.06	0	7	22	7	2	sw.	A. L. Duhig.
Thornton	Weston			64.7[f]		87[f]	11†	42[f]	8	35[f]	1.97		0.41	0	9	14	3	8	se.	Geo. H. Ferguson.
Ulm	Sheridan										2.08		0.80	0	8	19	9	3	nw.	W. H. Coleman.
Verona	do	4,360	3								2.40		0.85	0	5	18	13	0	se.	O. A. Roode.
Wheatland	Laramie			66.0		91	25	45	8†	37	2.43		0.90	0	10	20	8	3	w.	A. de F. Snively.
Wiants Ranch	Carbon	7,400	2								1.16		0.48	0	7	8	17	6	sw.	Ira G. Wiant.
Wiley	Park	5,375	3																	Thos. Harrison.
Woodrock	Sheridan										2.75		0.75	0	11	12	14	5	sw.	U. S. Forest Service.
Worland	Bighorn		1	66.8		95	25†	39	31	48	1.38		0.48	0	8	20	9	2	nw.	Prof. B. C. Buffum.
Wyncote	Laramie	4,207	5	65.2		92	25	41	23	48	2.10		0.51	0	11	22	7	2	e.	U. S. Reclamation Service.
Yellowstone Park	Yellowstone Park	6,200	24	55.7	− 5.2	83	26	32	30	41	1.66	+ 0.64	0.58	0	14	12	10	9	sw.	U. S. Weather Bureau.
Fairview Dome	do	7,000	7	52.1		83	27	22	30	49	1.77		0.38	0	10	10	7	14	sw.	U. S. Army.
Fountain	do	7,220	6	46.0		80	26	14	30	60	2.00		0.60	0	7	21	0	10	s.	Do.
Gallatin	do		1								1.70		0.40	0	6	14	11	6	n.	Do.
Grand Canyon	do																			Do.
Lake Yellowstone	do	7,900	5	50.8		79	26	25	30	48	3.15		0.75	0	14	15	13	3	s.	Do.
Norris	do	7,733	8	50.6		76	26	22	31	38	1.27		1.00	0	9	20	2	9	se.	Do.
Riverside	do	7,575	8																	Do.
Sylvan Pass	do	6,500	6	53.6		83	26	20	23	57	1.07		0.43	0	5	14	7	10	w.	Do.
Thumb	do	7,000	5	53.8		81	26	26	30	48	3.80		1.01	0	11	15	1	15	w.	Do.
Tower Falls	do	7,772	6																w.	Do.
Upper Geyser Basin	do	6,250	3	54.4		87	26	25	30	55	2.31		0.48	0	12	22	7	2	sw.	Do.
	do	7,395	8	51.8		79	26	22	30	43	7.30		1.90	0	8	18	0	13	se.	Do.
Montana.‡																				
Adel	Cascade	5 200	13	58.2	− 1.6	85	9†	30	29	45	2.42	+ 0.93	0.85	0	9	12	9	10	w.	Mrs. B. F. Burch.
Agricultural College	Gallatin	4.700	14	58.7	− 4.5	87	26	33	30	37	1.63	+ 0.56	0.51	0	9	18	5	8	se.	J. L. McGraw.
Augusta	Lewis and Clark	4.071	13	58.2	− 2.9	86	21	33	13	47	3.10	+ 1.90	0.82	0	8	20	7	4	w.	C. C. Covington.
Babb	Teton	4.461	5	53.0		78	25	32	14	40	1.31		0.75	0	3	1	28	2	w.	U. S. Reclamation Service.
Bald Butte	Lewis and Clark	6 500	2								2.20		0.87	0	10	15	4	12		M. W. Alderson.
Bigtimber	Sweet Grass	4,072	6	63.1		88	24†	38	17	38	1.09		0.50	0	4	16	6	9	w.	F. A. Severance.
Bigtimber Creek	do		2								2.89		0.84	0	11	15	13	3	w.	J. T. Mjolsness.
Billings	Yellowstone	3.115	16	65.4	− 4.6	94	24	36	30	51	0.95	− 0.20	0.53	0	12	14	9	8		D. J. Cole.
Birch Creek				58.0		90	22	33	30	47	1.38		0.73	0	5	18	9	2	w.	U. S. Reclamation Service.
Blackleaf	Teton	4,260	4	56.7		83	22	29	30	37	2.58		1.05	0	7	10	12	9	w.	Roy McNeal.
Boulder Nursery	Jefferson	4.920	16	57.0	− 5.4	87	26	25	30	49	1.76	+ 1.01	0.72	0	11	8	15	8	s.	U. S. Forest Service.
Bowen	Beaverhead	6.060	5	51.0		85	26	11	30	58	1.16		0.53	0	7	16	8	7		B. B. Lawrence.
Bridger	Carbon	3,664	3	63.8		93	24	34	30	49	1.55		1.23	0	4	5	10	16	n.	L. E. Gard.
Broadview	Yellowstone		5	64.8		94	12†	34	29	58	1.54		0.68	0	5	25	5	1	nw.	Thos. Hunt.
Busby	Rosebud		8	64.8		89	24	39	31	44	2.34		0.54	0	10	15	12	4	ne.	Rev. G. A. Linscheid.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana—Continued.																				
Busteed	Sweet Grass		4	62.4		86	24	36	30	42	0.97		0.57	0	7	14	15	2	nw.	T. H. Busteed.
Cabin Creek	Beaverhead		2								2.95		0.72	0	12	16	6	9	s.	W. J. Crowell.
Canyon Ferry	Lewis and Clark	3,644	13	64.0	− 2.9	90	9†	35	30	43	1.42	+ 0.41	0.46	0	10	17	6	8	nw.	A. C. Pratt.
Cascade	Cascade	3,361	7	64.0		92	9	35	13	44	2.05		0.76	0	11	12	14	5	sw.	Dr. E. E. James.
Chessman Reservoir	Lewis and Clark	5,275	3	54.2		80	26	26	30	40	2.70		0.68	T.	11	17	3	11	sw.	C. D. Schmidt.
Chester	Hill	3,140	8	59.7		90	26	32	15	53	2.73		0.81	0	7	3	7	21	w.	E. D. Keith.
Chinook	Blaine	2,502	13	64.5	− 3.5	90	9	38	30	38	2.39	+ 1.26	0.62	0	11	5	13	11	w.	T. O'Hanlon Co.
Clearcreek	....do		6	61.3[g]		85[g]	24	38[g]	17	40[g]	3.43		1.23	0	6	7[g]	8[g]	9[g]	sw.	Cortez Sedgewick.
Clemons	Lewis and Clark	4,672	2								2.70		0.73	0	11	7	11	13	w.	Frank Eberl.
Clydepark	Park		1	59.1		88	26	31	17†	46	1.15		0.38	0	7	13	7	11	w.	Frank Taylor.
Copper	Meagher		7								1.91		0.70	0	11	12	10	9	w.	Orville Harris.
Crow Agency	Rosebud	3,041	29	65.2	− 4.1	89	24	39	31	42	1.74	+ 0.77	0.70	0	8	9	5	17	sw.	Ira R. Bamber.
Culbertson	Valley	1,927	9	63.8	− 5.0	86	22	42	14†	37	3.55	+ 2.03	1.25	0	7	5	20	6	nw.	G. H. Coulter.
Cut Bank	Teton	3,760	13	60.3[i]	− 0.3	87[i]	22	37[i]	12†	44[i]	1.85	+ 0.72	0.58	0	4	16[i]	4[i]	2[i]	w.	Chas. N. Thomas.
Denton	Fergus	3,500	3	63.8		91	26	35	30	43	1.51		0.30	0	11	20	2	9	nw.	P. J. Griesenauer.
Dillon	Beaverhead	5,147	14	59.4	− 3.2	90	25	33	17	46	3.90	+ 2.56	1.22	0	9	18	3	10	sw.	Prof. J. E. Monroe.
Dry Creek	Broadwater	5,500	2								3.11		1.09	0	9	9	5	17	w.	J. C. Stuart.
Dry Wolf Camp	Cascade	6,000	3								2.63		1.02	0	12	11	12	8	sw.	Mrs. H. R. Eveleth.
Dunkirk	Teton	3,293									1.50		0.53	0	6	18	8	5	w.	B. C. Protzman.
Ekalaka	Custer		11	65.8	− 2.6	88	9†	42	8†	40	1.60	+ 0.13	1.00	0	2	3	25	3	w.	William Freese.
Elkhorn	Jefferson	6,576	3								1.84		0.43	0	13	12	9	10	w.	James Heagan.
Fallon	Custer	2,208	7	67.0		90	15†	44	13	39	2.51		1.08	0	4	16	11	4	w.	Mrs. A. C. Gifford.
Findon	Meagher	6,000	3								2.58		0.63	0	12	18	2	11	w.	Lewis Cameron.
Fish Creek	Silver Bow	8,500	2	50.7		72	24†	30	30	30	2.93		0.84	0	9	11	13	7	w.	O. B. Tilton.
Flathead Creek	Gallatin	6,000	1	58.1		83	26†	31	30	43	2.21		0.36	0	13	9	9	13	sw.	Alta Williams.
Forsyth	Rosebud	2,514	5	68.7		95	24	41	30	44	0.28		0.20	0	3	15	5	11	w.	H. Mackenzie.
Fort Benton	Chouteau	2,630	32	61.0	− 6.9	91	25	41	12†	37	3.45	+ 2.52	0.90	0	6	19	8	4	sw.	Jere Sullivan.
Fort Shaw	Cascade	3,500	23	63.0	− 1.6	88	9†	38	13†	42	2.58	+ 1.68	0.78	0	9	13	10	8	w.	U. S. Reclamation Service.
Fort Harrison	Lewis and Clark	4,004	8	62.4		90	26	35	29	36				0		20	7	4	w.	Post Hospital.
Foster	Yellowstone		2	65.5		94	22	39	30†	49	0.56		0.33	0	3	21	6	4	w.	E. K. Bowman.
Glasgow	Valley	2,092	15	63.0	− 5.5	86	24	37	30	35	5.12	+ 4.44	2.85	0	5	14	10	7	w.	W. M. Leonard.
Glendive	Dawson	2,069	21	67.4	− 4.2	88	24	44	9	38	4.34	+ 3.20	3.20	0	8	8	19	4	e.	E. C. Leonard.
Goldbutte	Hill		4	60.6		87	22	28	30	37	1.87		0.58	0	7	8	13	10	w.	Joseph Berthelote.
Graham	Custer		6	66.2		94	7	41	11	47	4.50		2.08	0	9	21	8	2	sw.	J. S. Rue.
Grayling	Gallatin	6,700	6	50.2		79	26	24	30	50	1.92		0.55	0	8	12	8	11	sw.	P. Kerzenmacher.
Great Falls	Cascade	3,350	20	64.2	− 2.7	86	25	43	30	33	3.10	+ 2.09	1.21	0	10	9	16	6	sw.	Robert Deardorf.
Halfway House	Broadwater	6,000	2								2.22		0.45	0	9	15	7	9	sw.	Gordon Deans.
Harlowton	Meagher	4,165	4	58.3		87	26	31	17	48	0.85		0.55	0	4	6[b]	11[b]	12[b]	w.	Joseph Muir.
Havre	Hill	2,505	32	62.6	− 4.3	90	24	40	17	38	2.24	+ 0.98	0.99	0	14	11	14	6	sw.	U. S. Weather Bureau.
Helena	Lewis and Clark	4,110	32	62.6	− 3.5	90	24	38	30	36	1.60	+ 0.91	0.79	0	10	11	10	10	sw.	Do.
Highwood	Chouteau		5								1.26		0.28	0	10	19	8	4	ne.	W. S. McCord.
Huntley	Yellowstone	3,014	6	66.2		93	22	40	30	45	1.60		0.44	0	7	18	11	2	w.	U. S. Reclamation Service.
Jones Canyon	Gallatin	6,800	3								1.95		0.46	0	11	7	11	13	e.	James McCune.
Knobles Ranch	Hill		1								2.00		0.50	0	10	13	5	13	w.	F. H. Knoble.
Lewistown	Fergus	4,010	14	59.8	− 3.5	89	29	30	30	47	1.16	− 0.38	0.23	0	9	14	4	13	w.	W. W. Watson.
Lonetree	Chouteau	3,280	6	64.4		91	9	39	30	41	3.01		0.98	0	6	20	3	8	w.	E. Wilson.
Lytle	Teton			61.8		87	9†	35	30	33	3.98		1.12	0	10	15	11	5	sw.	J. F. Fait.
Malta	Valley	2,240	5	62.1		87	22	34	7	45	4.33		1.73	0	9	13	11	7	w.	U. S. Reclamation Service.
Medicine Lake	....do		1	61.1		86	15	38	30	36	2.87		1.27	0	7	15	6	10	nw.	J. S. Collier.
Mildred	Custer		3								1.69		0.58	0	7	13	14	4	se.	Leon B. Clark.
Miles City	....do	2,371	20	68.8	− 2.7	94	24	48	13	39	1.19	+ 0.16	0.44	0	7	16	12	3	se.	U. S. Weather Bureau.
Norris	Madison	4,845	5	64.5		91	26	40	30	41	1.50		0.82	0	8	11	6	14	s.	Madison River Power Co.
Nye	Sweet Grass		3	53.2		81	22†	26	30	43	1.19		0.29	0	10	15[a]	6[a]	9[a]	sw.	F. L. Bryant.
Olsen Creek	Jefferson	6,345	3								2.26		0.69	0	10	16	5	10	w.	Robert Olsen.
Pinegrove	Musselshell										2.12		0.83	0	8	18	4	9	nw.	G. A. Woodcock.
Pipestone Pass	Jefferson	7,000	3								2.01		0.49	0	9	17	9	5	w.	Mrs. T. Keirmeyer.
Plevna	Custer	2,757		65.4		88	10†	38	13	41	2.52		2.06	0	8	21	4	6	nw.	C. C. Conser.
Poplar	Valley	2,020	26	64.8	− 4.7	86	10†	43	30	36	2.96	+ 1.93	1.45	0	4	17	7	7	w.	H. M. Cosier.
Red Lodge	Carbon	5,548	12	57.8	− 4.3	86	24	29	30	41	1.84	+ 0.85	0.88	0	6	12	8	11	nw.	I. A. Draper.
Renova	Jefferson	4,383	13	60.1	− 5.0	87	24	29	30	46	2.17	+ 1.48	0.65	0	8	17	2	12	sw.	F. B. Elmer.
Ryegate	Musselshell	3,640	2	64.6		98	22	35	13†	57	1.32		0.55	0	9	19	3	9	w.	H. Scherfenberg.
Savage	Dawson	2,050	6	66.3		87	22	43	31	40	2.61		1.09	0	6	17	12	2	w.	U. S. Reclamation Service.
Shelby	Teton	3,276		63.9		89	24	38	30	35	1.65		0.70	0	8					C. D. Kicher.
Sidney	Dawson		1	64.1		88	25	42	8	35	2.85		1.06	0	7	17	5	9	e.	Fred W. Arndt.
Springbrook	....do		10	64.8	− 3.6	92	5	37	14	45	2.37	− 0.15	1.38	0	7	7	17	7	sw.	Mrs. H. I. Miller.
Stearns	Lewis and Clark	4,500	2								1.94		0.68	0	10	18	5	8	sw.	Estelle W. Estill.
Sunlit Farm	Blaine		1	60.2		84	9	35	17	38	2.57		0.66	0	13	12	10	9	w.	C. R. Noyes.
Sun River Canyon	Teton	4,650		56.8		83	9	29	13	45	2.74		0.78	0	11	12	14	5	w.	U. S. Reclamation Service.
Trail Creek	Park	6,000	3								2.37		0.58	0	10	19	6	6	w.	A. Weidenbauer.
Utica	Fergus	5,000	17	60.0	− 5.2	90	26	35	30	43	1.67	+ 0.43	0.55	0	10	21	7	3	w.	P. W. Korell.
Valentine	....do		5	64.0		93	24	35	30	45	0.85		0.31	0	6	19	3	9	w.	B. M. Bean.
Valier	Teton			61.4		85	22†	38	30	37	1.84		0.55	0	5	23	5	3	w.	R. M. Templeton.
Virginia City	Madison	5,880	23	61.6	− 2.2	87	26	31	30	45	2.15	+ 0.97	0.70	0	8	16	5	10	w.	W. R. Baker.
Wall Rock Mountain	Broadwater	5,600	3								1.90		0.48	0	14	12	9	10	nw.	D. L. Doig.
Warm Springs Creek	Madison	7,500	2								3.53		0.90	0	14	5	5	21	w.	M. D. Lytle.
Wheaton	Musselshell			64.6		92	24	36	30	43	1.27		0.27	0	10	16	8	7	sw.	P. O. Balgord.
White Sulphur Springs	Meagher			59.2		87	26	31	30	42	1.41		0.42	0	9	10	16	5		P. R. Wild.
Wilder	Fergus		1	64.2		91	22	34	30	43	1.65		0.68	0	6	15	7	9	w.	J. Rogers.
Wolf Creek	Lewis and Clark	4,000	8	65.1		93	9	38	13	46	2.10		0.78	0	9	12	13	6	w.	A. J. Reed.
Woodville	Jefferson	6,376	3								2.35		0.68	0	8	7	19	5	sw.	Anna C. Kinman.
North Dakota.																				
Aplin	Oliver		6	65.2		90[b]	23	42[b]	1†	38[b]	3.13		0.76	0	11	15	8	8	nw.	J. C. Hagelbarger.
Arnegard	McKenzie			69.0		102	1	43	30	48	2.87		1.09	0	10	14	9	8	se.	A. B. Waterman.
Ashley	McIntosh	2,001	17	65.0	− 1.1	89	23	43	3	34	2.58	+ 0.25	1.24	0	5	21	7	3	nw.	R. C. Miles.
Beach	Billings	2,576	6	64.0		86	10†	39	14†	41	2.15		1.20	0	10	16	7	8	nw.	D. J. Steiner.
Belfield	Stark	2,583	1								3.80		2.15	0	10	15	7	9	w.	W. F. Gobius.
Berthold Agency	McLean	2,082	16	64.4	− 4.6	90	23	42	1	40	3.57	+ 2.42	1.25	0	8	18	6	7	nw.	C. L. Hall.
Bismarck	Burleigh	1,674	38	66.2	− 1.9	92	23	46	3	38	2.33	+ 0.35	0.66	0	12	12	14	5	nw.	U. S. Weather Bureau.
Broncho	Mercer		5	64.6		85	11	35	10	38	2.90		1.39	0	8	0	29	2	nw.	E. M. Walker.
Buford	Williams	1,944	7	65.1		85	23	45	30	32	2.36		0.65	0	9	14	3	14	nw.	C. H. McCune.
Carson	Morton			66.1		96	23	40	14	44	3.06		0.66	0	6	18	6	7		D. J. Basquin.
Dickinson	Stark	2,543	20	64.0	− 3.5	86	23	40	9	38	2.68	+ 0.83	1.45	0	7	13	10	8	nw.	L. R. Waldron.
Edgeley	Lamoure	1,468	11	64.4	− 2.5	94	23	35	3	44	2.65	+ 0.35	0.73	0	8	4	19	8	nw.	O. A. Thompson.
Energy	McLean																			T. L. Stanley.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota—Contd.																				
Epping	Williams		5								3.96		1.50	0	8	18	9	4	e.	M. E. Uggen.
Fullerton	Dickey	1,439	14	64.0	− 2.6	92	24†	41	3†	40	3.28	+ 0.28	1.20	0	8	16	13	2	se.	F. O. Allin.
Garrison	McLean	1,901	3	63.4	− 2.8	89	23	43	1†	36	3.12	+ 1.45	0.74	0	9	6	18	7	nw.	G. L. Robinson.
Grinnell	Mountrail																			F. W. Hannah.
Haley	Bowman		4	67.4		95	11	44	14	43	1.08		0.65	0	6	18	7	6	nw.	A. O. Lawrence.
Hettinger	Adams	2,253	6																	W. R. Lanxon.
Howard (near)	Divide	2,275	6	61.8		83	23	37	30	35	2.94		1.42	0	9	5	14	12	se.	C. P. Amsbaugh.
Jamestown	Stutsman	1,390	25	62.1	− 4.7	90	23	39	3	40	3.64	+ 1.30	0.68	0	12	12	6	13	nw.	Thos. Pettigrew.
Lamoine	Kidder		5	62.2		90	23	41	3	36	2.32		0.69	0	9	11	14	6	nw.	E. V. Virgin.
McHenry (near)	Eddy		3	61.5		84	23	44	3	35	6.13		1.45	0	11	13	9	9	nw.	John Knox.
Marmarth (near)	Bowman		5								1.66		0.55	0	6	12	9	10	w.	S. P. Grane.
Marstonmoor	Stutsman		5	62.2		91	23	36a	3	41a	2.59		0.60	0	11	10	17	4	nw.	H. H. McCumber.
Medora	Billings	2,225	16	69.6	+ 1.3	118	27†	32	15	66	2.41	+ 0.83	1.61	0	4	19	5	7	w.	J. W. Hesser.
Melville	Foster	1,590	15	63.6	− 3.2	95a	23	37a	3	45a	2.97	+ 1.09	0.87	0	8				nw.	J. P. Kidder.
Mott	Hettinger		6	65.0		90	23†	41	8†	37	1.99		0.97	0	8	11	12	8	w.	O. H. Opland.
Napoleon	Logan	1,955	21	63.4	− 3.5	93	23	38	3	47	3.55	+ 1.10	2.32	0	8	10	4	17	se.	C. J. Hoof.
New England	Hettinger	2,400	17	65.6	− 1.1	87	10	42	14	41	2.31	+ 0.69	1.05	0	6	16	4	11	nw.	J. M. Connolly.
New Rockford	Eddy	1,531	3								4.36		1.44	0	10					J. V. M. Sundberg.
New Salem	Morton	2,163	6	65.4		90	24†	43	3	37	3.12		1.16	0	7	12	9	10	se.	J. Christiansen.
Orange	Adams		6	66.2		91a	23	40a	1†	48a	2.99		0.93	0	7				nw.	J. E. Goforth.
Ranger	Billings																			R. E. Sheriff.
Steele	Kidder	1,857	17								3.97		1.06	0	12	9	21	1	w.	H. S. Wood.
Turtle Lake	McLean																			E. G. Ramen.
Washburn	do	1,731	9	66.4		92	23	45	3	36	1.53		0.45	0	5	7	1	23	w.	W. R. Peterson.
Williston	Williams	1,875	33	64.6	− 3.3	87	23	45	26	29	2.84	+ 1.53	1.32	0	8	6	16	9	se.	U. S. Weather Bureau.
South Dakota.																				
Aberdeen	Brown	1,300	22																	D. G. Gallett.
Academy	Charles Mix		13	69.8	− 2.7	99	25	51	10	45	3.35	+ 0.30	0.83	0	10	17	10	4	nw.	I. T. Lothrop.
Ardmore	Fall River	3,557	3																	F. L. Kelso.
Armour	Douglas	1,521	16	69.6	− 2.4	98	25	46	14	46	3.85	+ 1.16	1.30	0	7	14	10	7	n.	T. J. Markey.
Bellefourche	Butte	3,000	4					44	9		3.14		1.30	0	7	10	15	6	nw.	U. S. Reclamation Service.
Brookings	Brookings	1,636	23	66.6	− 1.2	93	25	42	3	39	4.68	+ 1.88	1.07	0	10	15	8	8	ne.	Experiment Station.
Bryant	Hamlin	1,846									2.55		1.00	0	8	7	20	4	nw.	J. W. Ault.
Camp Crook	Harding	3,000	20	65.3e	− 3.3	89e	23†	41e	30	45e	2.33	+ 0.96	1.10	0	12	19	8	4	nw.	U. S. Forest Service.
Canton	Lincoln	1,248	17	67.6	− 2.9	96	25	41	0	42	2.00	− 0.86	0.49	0	5	24	7	0	se.	John H. Holsey.
Cascade Springs	Fall River	3,422	4	68.7		95	25	44	25	51	1.44		0.94	0	4	19	6	6	e.	Fred Noerenberg.
Castlewood	Hamlin	1,685	6	65.5		95	25	44	2†	39	4.27		1.91	0	14	6	5	20	nw.	M. N. Bradley.
Centerville	Turner	1,229	15	69.6		97	25	47	2	39	3.02	− 0.31	0.97	0	11	4	21	6	nw.	Frank Williams.
Chamberlain	Brule	1,363	14	70.8	− 3.0	98	27†	48	5	45	4.30	+ 1.64	1.20	0	9	22	0	9	se.	W. B. Van Horn.
Clark	Clark	1,779	18	65.0	− 3.6	95	25	40	3	44	2.67	− 0.13	0.87	0	11	10	19	2	nw.	O. H. La Craft.
Cottonwood	Stanley	2,414	4	69.4		98	27	47	9	43	3.44		0.76	0	13	15	14	2	nw.	Experiment Station.
Custer	Custer	5,316									1.09		0.45	0	4	12	16	3	w.	R. P. Imes.
Daviston	Perkins		3	66.0		95	27	43	9	43	2.11		0.64	0	12	13	16	2	se.	P. A. Sattler.
Deadwood	Lawrence	4,535	3	62.5		87	27†	37	9	40	3.95		1.20	0	11	17	10	4		R. E. Grimshaw.
Deerfield	Pennington	6,000	3								1.23		0.31	0	9	16	9	6	sw.	Frank E. Miller.
De Smet	Kingsbury	1,726	19	67.4	− 1.9	95b	25	45b	27	44b	4.60	+ 2.00	1.10	0	9	25	1	5	nw.	J. O. Purinton.
Dowling	Stanley	2,250	3	69.6		98	27	51	3	41	4.98		1.50	0	9	15	11	5	nw.	M. P. Dowling.
Dumont	Lawrence	6,195	3								2.68		1.00	0	8	18	9	4	sw.	A. B. Wood.
Eagle Butte	Dewey	2,415		67.9		93	27	47	9	38	3.29		1.40	0	10	17	14	0		Dr. John F. Chandler.
Eales	Potter		1								1.86		0.65	0	10	14	12	5	se.	A. H. Peterson.
Edson	Meade		1																	J. C. Stoner.
Elk Mountain	Custer	4,700	3								1.89		1.20	0	7	18	5	8	se.	James E. Blaine.
Ellingson	Perkins			66.2		94	27	41	9	37	0.88		0.25	0	10	15	12	4	se.	Carl G. Moen.
Englewood	Lawrence	5,723	3								4.05		0.80	0	11	7	14	10	s.	T. J. Cummins.
Eureka	McPherson	1,884	3	66.3		93	23†	41	3†	43	3.27		1.01	0	12	7	23	1	nw.	Experiment Station.
Fairfax	Gregory		8	70.2		99	25	50	1	41	4.05		1.94	0	11	23	5	3	nw.	U. G. Stevenson.
Faulkton	Faulk	1,595	17	67.8	− 1.1	94	24†	44	3	43	2.65	+ 0.16	1.25	0	7	19	5	7	w.	Miss Belle Talcott.
Flandreau	Moody	1,565	22	68.0	− 0.6	93	25	44	2	38	4.13	+ 0.82	2.30	0	6	12	8	11	e.	W. A. Harris.
Forestburg	Sanborn	1,231	20																	S. S. Judy.
Fort Meade	Meade	3,624	29	66.1	− 4.4	94	28	45	2†	41	9.15	+ 7.41	3.20	0	14	15	6	10	w.	Post Hospital.
Frederick	Brown	1,371	3	65.6e		96e	25	34e	3	48e	3.55		1.88	0	9					J. E. Jeffers.
Greenmont	Lawrence	6,430	3								2.80		0.80	0	7	19	7	5	w.	H. C. Hoffbuhr.
Greenwood	Charles Mix		20	72.1	− 2.0	100	25	49	10	43	4.08	+ 1.73	1.22	0	8	18	9	4	se.	T. C. Williamson.
Hardingrove	Stanley			68.5d		100	27	43e	3	40e	3.19		0.84	0	10	5	15	11	se.	Mrs. Laura Sinclair.
Harveys Ranch	Lawrence	6,282	2								3.42		1.96	0	6	14	9	8		Jerome Harvey.
Hermosa	Custer	3,278	6	67.6		94	23†	47	8	40	3.28	− 1.52	0.83	0	7	20	7	4	sw.	S. M. Booth.
Highmore	Hyde	1,890	16	69.5	− 1.7	97	25	46	3	40	3.39	+ 1.01	1.05	0	8	11	13	7	se.	Experiment Station.
Hopewell	Stanley		2	70.2		104	24	48	9	44	2.59		1.12	0	9	12	9	10	nw.	E. R. Myers.
Howard	Miner	1,564	20	66.0e	− 3.2	97e	29	43e	8	51e	5.06	+ 2.29	1.90	0	10					J. J. Cox.
Howell	Hand		10	68.2	− 0.8	101	25	44	27	49	3.41	+ 0.66	0.67	0	16	13	17	1	se.	M. A. Shuster, jr.
Huron	Beadle	1,306	30	68.6	− 0.5	100	25	48	14	47	2.41	− 0.23	0.56	0	11	16	10	5	se.	U. S. Weather Bureau.
Ipswich	Edmunds	1,530	15	68.4	− 0.9	94	24†	40	3	35	3.30	+ 0.24	1.00	0	6	26	4	1	se.	J. B. Taylor.
Kadoka	Stanley	2,467	3	67.4		98	27	49b	9	42b	3.81		1.12	0	10	7	19	5	nw.	Rev. D. S. Brown.
Kennebec	Lyman	1,689	19	70.6	− 1.5	105b	25	48b	10	49e	2.90	+ 0.63	0.90	0	6	22	9	0		R. C. Van Horn.
Kidder	Marshall	1,295	8																	H. C. Schussler.
Kimball	Brule	1,788	23	69.4	− 1.5	97	25	48	19	38	4.85	+ 2.05	1.15	0	10	18	5	8	se.	G. D. Rose.
Lacreek	Bennett	2,700																		L. E. Baumgarten.
La Delle	Spink	1,400	15	69.2	− 1.0	100	25	44	2	35	3.18	− 0.60	1.10	0	7	13	7	11	se.	E. L. Ebbert.
Lead	Lawrence	5,200	3	63.4		83	10	42	9	31	3.07		1.08	0	13	7	19	5	nw.	E. F. Irwin.
Lemmon	Perkins	2,345	3	69.8		93a	23	49a	14	39a	2.95		0.89	0	6	20	11	0	n.	Arthur T. Briggs.
Manderson	Shannon		8	69.7		96	25†	45	9	45	2.62		1.06	0	8	22	5	4	s.	W. A. Spencer.
Marion	Turner	1,447	11	69.5	− 1.4	95	25	50	2†	35	4.39	+ 1.10	1.15	0	7	7	23	1	se.	M. H. Dains.
Marston	Sully		4	68.5		98	25†	40	21	47	3.62		0.88	0	10	11	18	2	ne.	John S. Walker.
Mellette	Spink	1,300	17	66.7	− 2.5	97	25	41	3†	45	2.57	− 0.38	0.59	0	8	13	13	5	nw.	Frank A. Howe.
Menno	Hutchinson	1,325	15	72.3e	+ 0.7	98e	12†	50e	9†	48e	4.47	+ 1.80	1.60	0	7					J. S. Headley.
Milbank	Grant	1,148	21	64.8	− 3.6	97	25	38	3	43	3.09	+ 0.26	0.55	0	15	16	3	12	nw.	I. T. Patridge.
Mitchell	Davison	1,312	18	67.6	− 2.7	95	25	46	14	40	5.49	+ 2.92	1.48	0	9	24	4	3	s.	C. W. Downey.
Mobridge	Walworth		1	69.6		98	25†	46	11	44	4.35		1.90	0	7	16	14	1	nw.	Thomas J. Morris.
Murdo	Lyman	2,300	4	70.1		100	25†	48	9	46	3.15		1.00	0	5	18	13	0	nw.	L. C. Bode.
Oelrichs	Fall River	3,339	20	68.4	− 2.3	99	25	42	9	52	1.84	+ 0.52	0.77	0	6	14	16	1	ne.	J. E. Strouse.
Onaka	Faulk	1,600									3.65		1.20	0	7	13	12	6	nw.	H. P. Camp.
Orman	Butte	2,920	6	68.8		92	25	49	14†	40	2.73		0.93	0	10	7	15	9	e.	U. S. Reclamation Service.
Ottumwa	Stanley		4	66.4		97a	27	40a	9†	55a	4.50		1.57	0	10	20	5	6		J. W. Bretz.
Parkston	Hutchinson	1,400									4.02		1.10	0	9	24	2	5		W. C. Rempfer.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days. 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Dakota—Contd.																				
Pierre	Hughes	1,572	20	71.0	− 2.1	99	27	54	9	38	3.85	+ 1.84	1.75	0	11	14	10	7	e.	U. S. Weather Bureau.
Plankinton	Aurora	1,528	18								4.84	+ 2.31	1.52	0	8	11	16	4	se.	W. G. Andrews.
Pollock	Campbell		6	67.4		96	23†	41	10	51	2.31		0.65	0	7	8	15	8	se.	J. H. Jones.
Rapid City	Pennington	3,251	24	67.6	− 1.2	93	27	49	3	33	2.86	+ 0.75	0.79	0	12	19	7	5	w.	U. S. Weather Bureau.
Redfield	Spink	1,295	14	68.0	− 1.2	97	24	45	3	39	3.04	− 0.37	1.11	0	7	17	2	12	nw.	A. S. Hall.
Rochford	Pennington	5,228	2								1.72		0.75	0	8	12	13	6	nw.	Mrs. M. E. Deffenbaugh.
Rosebud	Todd	2,600	18	68.5[a]	− 2.9	96[a]	25†	47[a]	10†	47[a]	2.06	+ 0.15	0.80	0	7	14	12	5	se.	W. M. Ege.
Roslyn	Day		6	64.4		94	25	42	3	40	2.47		0.72	0	10	12	12	7	nw.	O. O. Floren.
Selby	Walworth		4	67.2		92[a]	24†	48[a]	14	41[a]	3.58		0.71	0	9	19	10	2	nw.	Miss Gertrude Hall.
Sioux Falls	Minnehaha	1,400	21	68.4	− 1.9	91[a]	24†	47[a]	3	36[b]	4.30	+ 1.02	1.15	0	9	18	9	4	s.	J. H. Bechtold.
Sisseton	Roberts	1,202	6	65.1		93[a]	25	45	3†	33[a]	2.33		0.67	0	11	13	0	18	n.	George Gray.
Sorum	Perkins		1	65.8		93	28	42	9	37	1.82		0.33	0	12	11	13	7	nw.	M. S. Eberhart.
Spearfish	Lawrence	3,647	22	65.2	− 4.3	86	28	49	20	29	4.40	+ 2.84	1.84	0	9	14	11	6	s.	A. E. Johnson.
Stephan	Hyde	1,840	8	68.3		95	25	48	2†	43	3.78		1.05	0	6	15	7	9	se.	Rev. A. Mattingly.
Tama	Meade		3																	Mrs. O. V. Hansell.
Timber Lake	Dewey	2,163		69.6		95	11	48	9	38	4.04		1.78	0	6	21	10	0	nw.	R. T. Holihan.
Tyndall	Bonhomme	1,418	15	70.2	− 1.6	95	25	51	10	36	2.64	− 0.94	1.01	0	10	16	10	5	nw.	F. F. Chladek.
Vale	Butte	2,765	4	68.6		92	23†	45	9	43	4.46		1.61	0	9	14	14	3	nw.	U. S. Reclamation Service.
Vermilion	Clay	1,222	11	71.5	− 1.1	97	25	49	2	35	3.47	+ 0.09	0.90	0	10	23	4	4	se.	Prof. E. C. Perisho.
Waters Ranch	Lawrence	4,000	2								3.80		1.44	0	12	10	5	16	e.	George Waters.
Watertown	Codington	1,735	18	65.0	− 1.9	96	25	43	3	42	2.29	− 1.07	0.63	0	12	12	13	6	ne.	Robert Q. Wood.
Wentworth	Lake		19	67.2	− 2.0	92	25	46	3	34	5.56	+ 2.57	2.39	0	9	21	6	4	s.	R. C. Zimmerman.
Wessington Springs	Jerauld	1,410	12																	Mrs. N. J. Dunham.
White Lake	Aurora	1,646	3								3.58		2.20	0	6	17	12	2	nw.	Mrs. G. A. Rogers.
Winner	Tripp	2,500		70.2		101	27	50	9	44	4.24		0.90	0	12	12	12	7	nw.	J. W. Barnum.
Yankton	Yankton	1,234	38	71.1	− 1.7	96	25	53	14	37	2.36	− 0.76	0.74	0	8	15	10	6	ne.	U. S. Weather Bureau.
Minnesota.																				
Pipestone	Pipestone	1,710	11	67.6	− 0.8	92	25	47	4	36	4.47	+ 0.37	1.05	0	10	8	15	8	sw.	A. L. Doan.
Colorado.																				
Albion Lake	Boulder	10,500	2																	F. R. Dungan.
Arriba	Lincoln	5,243	6	67.4		91	25†	47	9	40	3.41		0.77	0	13	17	14	0	s.	C. A. Creel.
Auldhurst	Teller	8,500	2								1.71		0.98	0	11	4	23	4	s.	Mrs. Alice A. Auld.
Bennett (near)	Arapahoe	5,484	4								2.58		1.00	0	8	26	4	1	n.	J. F. Egelhoff.
Boulder	Boulder	5,347	16	69.4	− 1.1	91	11	40	10	50	1.77	+ 0.29	0.55	0	11	10	20	1	e.	Prof. J. A. Hunter.
Burlington	Kit Carson	4,160	9	70.6		98	25	50	8	37	3.83		1.01	0	12	9	20	2	se.	W. P. Davis.
Cassells	Park	8,445	2								1.02		0.60	0	3	27	3	1	w.	Harriet M. Cassell.
Castle Rock	Douglas	6,220	20	65.2	− 0.4	93	25	40	23†	53	4.38	+ 2.25	1.72	0	9	11	14	6	s.	Thos. P. Vaughan.
Cheesman	Jefferson	6,890	9	64.8		87	26	43	27	42	1.44		0.35	0	8	2	29	0	s.	J. G. Thornburg.
Cheyenne Wells	Cheyenne	4,279	20																	J. W. Adams.
Cope	Washington		15	66.3	− 6.4	93	25	47	20†	45	6.44	+ 4.23	2.00	0	9	17	8	6	e.	Mrs. Dora M. Christopher.
Corona	Grand	11,660	5	45.6		60	25	30	8	24	1.64		0.32	0	7				w.	U. S. Weather Bureau.
Denver	Denver	5,272	40	70.2	− 0.2	94	26	47	9	41	1.07	− 0.27	0.42	0	8	13	15	3	sw.	Do.
Edgewater	Jefferson	5,450	4	69.4		94	25	42	9	45	2.08		0.72	0	10	17	14	0		N. P. Levin, M. D.
Estes Pk. Fish Hatch	Larimer	8,000	3								0.80		0.25	0	4	10	16	5	w.	G. H. Thomson.
Fort Collins	....do	4,985	33																	Colorado Agricultural Coll.
Fort Lupton	Weld	4,907	2								0.50		0.17	0	10					R. W. Benedict.
Fort Morgan	Morgan	4,319	14	69.4	− 2.7	97	24†	44	9	49	1.81	+ 0.20	0.45	0	9	11[a]	18[a]	1[a]	ne	Miss Della M. Scott.
Frances	Boulder	9,300	7	58.8		86	26	35	8	41	1.48	− 2.00	0.52	0	10	3	27	1	w.	C. W. Barry.
Frys Ranch	Larimer	7,500	2	57.8		83	26	35	24	44	0.57		0.20	0	6	18	9	4	w.	Norman W. Fry.
Georgetown	Clear Creek	8,550	10								1.70	− 0.07	0.51	0	11	2	26	3		H. L. Corbett.
Greeley	Weld	4,649	21	68.7	− 5.7	95	25	46	9†	49	0.51	− 0.45	0.13	0	9	22	9	0	e.	Nelson Reynolds.
Grover (near)	....do	5,076	8																	D. M. Porter.
Hartsel	Park	8,892	3								1.18		0.99	0	5	16	10	5	nw.	Emily Kleinknecht.
Hawthorne	Boulder	6,000	3								1.75		0.62	0	10	20	10	1		B. E. Chesebro.
Holyoke (near)	Phillips	3,745	16	64.2	− 8.7	100	25	34	9†	59	4.55	+ 2.25	2.06	0	8	20	1	10	se.	A. C. Cauble.
Idaho Springs	Clear Creek	7,543	12	62.3	+ 0.1	85[a]	26	43[a]	19	35[a]	1.26	− 1.62	0.36	0	8	4	25	2	w.	J. J. Willis.
Julesburg	Sedgwick	3,465																		Great Western Sugar Co.
Keota	Weld	4,966	1																	I. S. Griffin.
Kersey	....do	4,571									1.30		0.50	0	4	15	9	7	w.	Great Western Sugar Co.
Laporte	Larimer	5,053	21								2.76	+ 1.48	1.00	0	6					P. A. Taft.
Leroy (near)	Logan	4,380	23								1.60	− 0.55	0.47	0	11	13[d]	12[d]	2[d]		Chas. Green.
Longmont	Boulder	4,950	11	68.2	− 0.3	94	9†	46	8†	47	0.98		0.29	0	8	26	3	2	sw.	Great Western Sugar Co.
Longs Peak (near)	Larimer	8,600	17	54.2	− 4.1	78	26	32	22	39	2.66	+ 0.56	1.20	0	9	13	13	5	w.	Enos A. Mills.
Lulu Pass	....do		2																	A. M. McCahan.
Merino	Logan										4.63		1.42	0	7	15	12	4		Great Western Sugar Co.
Moraine	Larimer	7,775	22	56.4	− 2.9	84	26	32	9†	47	0.53	− 1.01	0.25	0	4	21	10	0	w.	Chas. A. Chapman.
Platte Canon	Jefferson	5,492	13								2.13	+ 0.60	1.40	0	4	14	17	0	w.	Denver Union Water Co.
Saint Cloud	Larimer	7,750	9								0.77		0.26	0	8	14	12	5	nw.	Homer C. Pearson.
Sedgwick	Sedgwick	3,539	4	68.4		99	25	42	9	52	4.62		1.46	0	9	14	11	6	nw.	Edwin Lewis, M. D.
Sill Mine	Clear Creek	11,500	3																	Chas. F. Deininger.
Spicer (near)	Jackson	8,700	2	58.2		91	26	24	19	60	1.30		0.50	0	5	14	8	9	sw.	Frank W. Murphy.
Sterling	Logan	3,892	3	69.4		97	25	46	9	47	2.65		0.45	0	9	12	12	7	e.	Great Western Sugar Co.
Waterdale	Larimer	5,206	9	69.4		96	26	46	9	46	1.46		0.75	0	4					P. H. Boothroyd.
Wray	Yuma	3,512	16	70.6	− 2.8	96	25	47	9	44	5.16	+ 3.05	1.42	0	8	14	16	1	e.	J. C. Tuomey.
Yuma	....do	4,138	21								4.51	+ 1.33	1.13	0	8	20	6	5	se.	Matthew Harr.
Nebraska.																				
Ainsworth	Brown	2,521	7	71.2		100	25	48	8	41	5.03		0.90	0	12	2	20	9	sw.	John M. Cotton.
Albion	Boone	1,747	17	72.2	+ 0.9	103	25	47	10	48	1.80	− 1.05	1.13	0	5	12	7	12	nw.	F. M. Weitzel.
Alliance	Boxbutte	3,968	19	66.3	− 4.3	93	29	43	10	44[a]	3.35	+ 1.47	1.20	0	6	18	10	3	se.	J. A. Keegan.
Alma	Harlan	1,939	17	72.9	− 2.4	98	27†	48	10	42	3.07	− 0.61	1.39	0	8	19	8	4	sw.	W. A. Sharpnack.
Arcadia	Valley	2,186	13								1.06	− 2.18	0.45	0	6	15	12	4	se.	J. L. Owen.
Arden	Wheeler		2								2.51		0.80	0	8	15	11	5	se.	A. E. Johns.
Ashland	Saunders	1,100	30	75.0	0	100	12†	55	3†	39	3.43	− 0.47	1.82	0	10	20	8	3	s.	Dr. A. S. Mansfelde.
Ashton	Sherman	2,061	21								1.04	− 1.86	0.32	0	6	20	6	5	se.	F. Rein.
Atkinson	Holt	2,108	7	69.4		98	25	48	10	41	2.20		1.30	0	5	14	9	8	n.	C. J. Wilson.
Auburn	Nemaha	1,051	20	75.2	+ 0.4	102	28	50	4	44	1.91	− 2.24	0.50	0	10	24	2	5	sw.	J. R. Huffman.
Aurora	Hamilton	1,792																		C., B. & Q. R. R. Co.
Beatrice	Gage	1,235	23	75.0	0	95	24	54	3	30	2.46	− 1.16	0.53	0	9	16	7	8	s.	H. E. Palmer.
Beaver City	Furnas	2,147																		T. M. Davis.
Bellevue	Sarpy	1,210	30	74.8	+ 1.0	97	[illegible]	55	9	32	4.39	+ 1.34	2.09	0	7	19	7	5	ne.	A. A. Tyler.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Nebraska*—Continued.**																				
Benkelman	Dundy	2,968	14	.....	.....	.....	.....	.....	.....	.....	4.90	+ 2.39	1.60	0	7	8	17	6	sw.	R. D. Druliner.
Bertrand	Phelps	2,515	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. F. Dobbin.
Blair	Washington	1,122	17	73.7	+ 0.2	99	25	54	4†	39	4.56	+ 0.59	1.81	0	14	19	8	4	nw.	D. C. Van Deusen.
Bloomfield	Knox	.....	5	70.2	.....	98	25	48	10†	42	4.52	.....	2.69	0	9	12	15	4	s.	Dr. L. C. Bleick.
Bradshaw	York	1,715	15	.....	.....	.....	.....	.....	.....	.....	2.15	− 3.02	1.57	0	3	15	15	1	.....	E. C. Roggy.
Bridgeport	Morrill	3,658	16	68.4	− 3.0	98	25	43	9	52a	3.38	+ 1.68	1.21	0	11	17	9	5	se.	R. H. Willis.
Broken Bow	Custer	2,477	17	69.2	− 2.5	101	24	46	9	47	1.30	− 2.08	1.23	0	2	20	2	9	w.	C., B. & Q. R. R. Co.
Bruning	Thayer	1,583	1	.....	.....	.....	.....	.....	.....	.....	6.37	.....	3.14	0	10	19	8	4	sw.	Henry Middendorf.
Burge	Cherry	2,674	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Davis.
Butte	Boyd	.....	7	70.2	.....	100	25	50	10	47	2.80	.....	0.85	0	10	18	10	3	s.	W. Whitla.
Cairo	Hall	1,951	4	.....	.....	.....	.....	.....	.....	.....	0.84	.....	0.57	0	6	.....	.....	.....	.....	Elliott Harrison.
Callaway	Custer	2,555	18	75.8	+ 3.7	105	25	52	2†	44	1.58	− 1.66	1.27	0	3	15	10	6	s.	J. H. Evans.
Cambridge	Furnas	2,258	6	72.6	.....	101	25†	50	9	48	2.90	.....	1.00	0	9	21	0	10	e.	Chas. Jensen.
Columbus	Platte	1,442	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Rush.
Crete	Saline	1,368	29	76.3	+ 2.7	100	12†	54	10†	38	2.02	− 1.50	0.80	0	8	18	6	7	s.	Doane College.
Culbertson	Hitchcock	2,565	26	74.4	.....	102	25	51	9	41a	2.49	− 0.21	0.50	0	11	21	4	6	se.	Homer L. Nye.
Curly	Sioux	.....	4	64.5f	.....	92	25	38	9	46f	4.00	.....	1.08	0	7	15	10	6	se.	A. E. Hann.
Curtis	Frontier	2,553	15	72.2	− 2.6	96	28	50	9	41	4.02	+ 0.87	1.26	0	7	17	9	5	s.	Dr. S. R. Razee.
David City	Butler	1,619	24	73.6	+ 1.9	97	25	55	4†	33	3.28	− 0.32	1.31	0	9	16	11	4	se.	S. Clingman.
Du Bois	Pawnee	1,074	7	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.47	0	11	21	3	7	sw.	O. M. Backus.
Dumas	Garfield	.....	4	70.4	.....	101	25	46	10	48b	1.58	.....	0.57	0	9	24	3	4	sw.	Emile Raes.
Elm Creek	Buffalo	2,268	5	.....	.....	.....	.....	.....	.....	.....	1.09	.....	0.45	0	4	.....	.....	.....	.....	E. L. Sutton.
Elsie	Perkins	3,382	4	.....	.....	.....	.....	.....	.....	.....	2.93	.....	1.40	0	14	.....	.....	.....	.....	J. F. Brittain.
Ericson (near)	Wheeler	2,029	20	.....	.....	.....	.....	.....	.....	.....	2.96	+ 0.42	1.36	0	7	10	18	3	se.	J. A. Bodyfield.
Ewing	Holt	1,888	21	71.9	.....	106	25	46	14	51	1.50	− 1.31	0.63	0	6	.....	.....	.....	.....	G. H. Benson.
Exeter	Fillmore	1,607	1	.....	.....	.....	.....	.....	.....	.....	4.21	.....	3.25	0	5	.....	.....	.....	.....	Frank Ainsworth.
Fairbury	Jefferson	1,316	38	77.0	+ 1.3	101	12	51	10	39	3.49	+ 0.17	1.50	0	8	14	13	4	ne.	W. F. Cramb.
Fairmont	Fillmore	1,641	19	73.0	− 0.4	97	13†	51	3†	40	5.46	+ 1.76	4.35	0	6	18	9	4	s.	C., B. & Q. R. R. Co.
Falls City	Richardson	898	18	78.2	+ 1.5	106	28	54	3†	36	1.77	− 1.81	0.43	0	8	16	11	4	se.	Dr. J. C. Yutzy.
Ft. Robinson	Dawes	3,764	30	67.6	− 2.4	94	25†	44	9†	43	2.59	+ 0.98	0.65	0	7	20	6	5	w.	Post Surgeon.
Franklin	Franklin	1,820	18	74.6	− 0 8	100	25†	43	1	47	2.27	− 0.74	0.82	0	6	17	6	8	se.	A. R. Peck.
Fremont	Dodge	1,203	33	74.2	+ 1.2	100	25	54	9†	39	4.18	+ 0.27	1.95	0	10	14	8	9	se.	Ernest Hahn.
Fullerton	Nance	1,629	10	73.4	.....	102	25†	52	10	40b	2.74	− 1.52	1.34	0	3	19	11	1	s.	Dr. F. W. Johnson.
Geneva	Fillmore	1,633	22	74.5	0	96	12†	52	3	34	5.34	+ 1.88	2.85	0	8	19	8	4	sw.	F. M. Flory.
Genoa	Nance	1,584	37	74.4	+ 1.2	101	25	53	4†	44	3.17	+ 0.21	1.30	0	10	19	6	6	s.	F. W. Parsons.
Gordon	Sheridan	3,550	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. F. Williams.
Gosper	Gosper	.....	11	.....	.....	.....	.....	.....	.....	.....	2.36	− 1.03	0.87	0	10	21	4	6	s.	E. H. Stoll.
Gothenburg	Dawson	2,557	18	71.3	− 1.8	101	25	48	9†	45	2.29	− 0.98	0.60	0	7	14	7	10	s.	Dr. W. J. Bartholomew.
Grand Island	Hall	1,860	20	75.2	+ 1.4	104	12†	51	10	37	1.95	− 1.91	1.10	0	5	9	9	13	e.	E. A. Barnes.
Grant	Perkins	3,405	9	69.7	.....	101	25	46	9	46	3.16	.....	2.00	0	7	21	2	8	se.	Cyrus Carver.
Greeley	Greeley	2,021	18	73.4e	.....	101e	25	54e	14	42e	2.30	− 0.46	1.18	0	.....	.....	.....	.....	se.	W. E. Morgan.
Guide Rock	Webster	1,646	12	.....	.....	.....	.....	.....	.....	.....	5.08	+ 1.55	2.42	0	7	19	6	6	s.	J. S. Marsh.
Halsey	Thomas	2,695	10	70.0	− 2.4	98	25	46	10	45	3.77	+ 0.98	2.22	0	10	9	11	11	ne.	U. S. Forest Service.
Hartington	Cedar	1,309	22	70.6	− 0.4	98	25	52	14	37	4.22	+ 0.41	2.82	0	7	7	19	5	se.	D. E. Ewing.
Harvard	Clay	1,812	23	76.4	+ 2.8	103	25	53	10	35	2.27	− 0.95	1.00	0	5	10	12	9	se.	Bert Gregg.
Hastings	Adams	1,932	23	74.4	+ 0.4	99	13†	52	3†	37	1.70	− 1.89	1.60	0	4	25	3	3	se.	C., B. & Q. R. R. Co.
Hayes Center	Hayes	.....	19	71.9	.....	99	25†	51	9	41	5.56	+ 2.18	2.60	0	11	20	6	5	se.	C. A. Ready.
Hay Springs	Sheridan	3,821	26	66.9	− 2.2	95	25	42	9	49	3.15	+ 1.07	2.00	0	7	16	8	7	se.	A. Kadlecek.
Hebron	Thayer	1,458	27	74.2	− 0.4	95	25	53	3†	34	5.22	+ 1.64	2.32	0	11	.....	.....	.....	.....	Dr. C. M. Easton.
Hemingford	Boxbutte	4,256	3	.....	.....	.....	.....	.....	.....	.....	3.00	.....	1.36	0	9	.....	.....	.....	.....	A. S. Enyeart.
Hendley	Furnas	2,231	8	.....	.....	.....	.....	.....	.....	.....	3.76	.....	1.35	0	7	.....	.....	.....	.....	T. L. Jones.
Herschey	Lincoln	2,902	1	.....	.....	.....	.....	.....	.....	.....	1.82	.....	1.00	0	6	19	7	5	.....	G. F. Palmer.
Hillside	McPherson	3,484	3	67.2	.....	95	25†	43	9†	48	4.57	.....	1.23	0	15	20	6	5	se.	Mrs. M. R. Lloyd.
Holdrege	Phelps	2,324	21	73.2	− 1.6	102	25	49	10	40	2.09	− 1.11	0.58	0	9	19	4	8	se.	C., B. & Q. R. R. Co.
Hooper	Dodge	1,228	15	72.0	− 1.3	101	25	51	10	41	4.25	+ 0.08	1.40	0	9	14	2	15	se.	Dr. W. H. Heine.
Hull (near)	Banner	.....	2	.....	.....	.....	.....	.....	.....	.....	4.45	.....	2.16	0	7	20	5	6	w.	Mrs. W. P. Miller.
Imperial	Chase	3,278	23	69.3	− 4.1	94	25†	42	7	42	4.28	+ 1.46	2.10	0	8	12	10	9	se.	Robt. Malcolm.
Kearney	Buffalo	2,146	25	75.0	+ 0.2	103	12	50	10	44	1.35	− 1.35	0.49	0	4	17	13	1	se.	City Engineer.
Kimball	Kimball	4,697	25	67.1	− 2.7	95	25	42	8	41	3.73	+ 2.24	1.17	0	9	17	11	3	se.	F. J. Bellows.
Kirkwood	Rock	.....	17	69.7	− 1.7	101	25	46	10	47	2.74	− 0.74	0.88	0	9	15	11	5	nw.	Mrs. C. Arter.
Kowanda	Garden	.....	4	.....	.....	.....	.....	.....	.....	.....	3.00	.....	1.28	0	10	.....	.....	.....	.....	Geo. W. Hulse.
Lamar	Chase	.....	2	.....	.....	.....	.....	.....	.....	.....	5.76	.....	2.17	0	10	22	3	6	se.	L. R. McGaughey.
Lexington	Dawson	2,385	23	73.0	+ 0.8	102	25	48	10	49a	1.18	− 1.89	0.52	0	5	25	0	6	se.	Robt. Chadwick.
Lincoln	Lancaster	1,189	33	75.4	+ 1.1	102	25	55	3	39	4.16	+ 0.45	2.45	0	10	11	14	6	e.	U. S. Weather Bureau.
Lodgepole	Chevenne	3,820	14	68.0	− 2.1	97	27	42	9	47	2.83	+ 0.92	0.90	0	10	18	8	5	e.	R. T. Kidney.
Loup City	Sherman	2,067	18	72.4	− 0.3	103	25	45	10	51	0.86	− 2.70	0.28	0	5	23	6	2	se.	Harriet Hayhurst.
Loyal	Custer	.....	4	.....	.....	.....	.....	.....	.....	.....	2.06	.....	1.05	0	7	17	4	10	s.	C. H. Cass.
McCook	Redwillow	2,506	18	72.8	− 3.5	98	24†	50	8†	48	2.11	− 0.51	0.53	0	8	23	0	8	se.	C. G. Coglizer.
McCool Junction	York	1,575	17	.....	.....	.....	.....	.....	.....	.....	3.61	+ 0.06	2.90	0	5	.....	.....	.....	.....	L. L. Slagel.
Madison	Madison	1,585	19	70.2	− 1.5	96	25	45	9†	40	2.99	− 0.36	1.10	0	6	18	9	4	sw.	Dr. F. A. Long.
Marquette	Hamilton	1,830	33	.....	.....	.....	.....	.....	.....	.....	3.83	+ 0.63	1.39	0	8	.....	.....	.....	.....	John Ellis.
Mary	Brown	.....	2	.....	.....	.....	.....	.....	.....	.....	3.43	.....	0.72	0	11	20	7	4	se.	G. C. Stufft.
Mason City	Custer	2,257	12	.....	.....	.....	.....	.....	.....	.....	1.87	− 1.56	1.50	0	5	.....	.....	.....	.....	J. A. Amesbury.
Minatare	Scotts Bluff	3,825	3	.....	.....	.....	.....	.....	.....	.....	3.34	.....	0.96	0	8	16	10	5	nw.	A. Kennedy.
Minden	Kearney	2,169	35	75.3	+ 1.9	103	12†	48	10	40	1.92	− 1.73	0.68	0	8	18	8	5	se.	Joel Hull.
Mitchell	Scotts Bluff	3,950	4	66.9	.....	96	25	42	9	48	3.59	.....	1.63	0	10	17	9	5	se.	U. S. Reclamation Service.
Nebraska City	Otoe	941	37	75.4	+ 1.1	98	25†	51	4	36	1.94	− 1.67	0.72	0	4	20	7	4	s.	C., B. & Q. R. R. Co.
Nelson	Nuckolls	1,683	2	75.0	.....	97	28	52	3†	41	7.44	.....	2.60	0	7	21	7	3	se.	Mack I. Koser.
Norfolk	Madison	1,532	31	72.7	+ 0.6	101	25	50	10	43	4.04	+ 0.24	1.90	0	10	24	3	4	s.	Dr. P. H. Salter.
North Loup	Valley	1,961	24	74.2	+ 1.8	107	25	47	10	52	1.65	− 1.16	0.63	0	4	17	12	2	se.	W. G. Rood.
North Platte	Lincoln	2,841	38	70.6	− 1.6	98	25	50	9	44	1.27	− 1.19	0.67	0	5	13	14	4	se.	U. S. Weather Bureau.
Oakdale	Antelope	1,722	25	70.4	− 1.1	97	25	50	10	38	2.32	− 0.59	1.51	0	8	14	11	6	s.	G. S. Clingman.
Omaha	Douglas	1,103	42	75.3	+ 0.9	98	25	58	9	34	4.78	+ 1.16	2.08	0	10	10	10	11	s.	U. S. Weather Bureau.
Ord	Valley	2,062	17	.....	.....	.....	.....	.....	.....	.....	1.97	− 1.05	0.53	0	8	17	4	10	s.	Jas. Milford.
Orleans	Harlan	1,993	5	.....	.....	.....	.....	.....	.....	.....	3.58	.....	2.00	0	5	.....	.....	.....	.....	Jas. McGeachin.
Osceola	Polk	1,644	14	.....	.....	102	12†	.....	.....	.....	7.33	+ 3.08	3.25	0	6	8	20	3	s.	G. T. Ray.
Palisade	Hitchcock	.....	3	.....	.....	.....	.....	.....	.....	.....	2.91	.....	0.80	0	8	.....	.....	.....	.....	E. E. Young.
Palmyra **	Otoe	1,142	20	75.0	+ 0.4	100	25	60	3†	...	4.12	+ 0.25	2.55	0	9	18	10	3	sw.	Thos. Coles.
Pawnee City	Pawnee	1,175	15	77.0	.....	102	28	52	3†	34	3.25	− 0.68	1.40	0	9	20	8	3	se.	F. A. Barton.
Paxton	Keith	3,060	5	73.0f	.....	96f	27	51f	21	40f	2.61	.....	1.25	0	11	21	5	5	se.	C. F. Coy.
Plymouth	Jefferson	1,419	8	75.4	.....	100	12†	51	3	37	2.78	.....	1.10	0	6	12	11	8	e.	John Ruppel.
Purdum	Blaine	.....	13	69.0	− 2.1	101	25	46	10	47	4.06	+ 0.80	1.22	0	11	19	6	6	se.	T. C. Jackson.
Ravenna	Buffalo	2,028	35	73.4	+ 0.4	105	25	45	10	52	0.58	− 2.68	0.14	0	8	18	11	2	s.	H. G. Smith.
Red Cloud	Webster	1,687	20	74.9	− 0.7	98	28	49	1†	40	4.01	+ 0.97	1.22	0	11	20	5	6	se.	Chas. S. Ludlow.
St. Libory	Howard	1,887	18	.....	.....	.....	.....	.....	.....	.....	2.30	− 1.07	1.30	0	3	17	13	1	sw.	W. I. Meader.
St. Paul	....do	1,796	19	74.6	0	104	25	52	10	46	3.10	− 0.43	1.03	0	7	22	8	1	se.	Paul Anderson.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Nebraska*—Continued.**																				
Santee	Knox		25	72.2	− 1.8	100	25	52	27	41	3.33	+ 0.57	1.46	0	8	19	7	5	se.	Geo. MacGregor.
Sargent	Custer	2,339																		J. L. Ferguson.
Schuyler	Colfax	1,357																		R. O. Brownell.
Scottsbluff	Scotts Bluff	3,888	6	68.0		97	25	44	9	50	3.73		0.95	0	12	22	5	4	se.	A. B. McCoskey.
Seward	Seward	1,435	22	75.0	+ 0.1	99	12†	54	3	31	6.13	+ 1.84	2.85	0	7	8	21	2	se.	C., B. & Q. R. R. Co.
Sidney	Cheyenne	4,090	20								4.18	+ 2.16	1.56	0	11	20	7	4	nw.	John P. Fischer.
Springfield	Sarpy	1,052	1								2.85		2.00	0	5	16	5	10	se.	L. A. Bates.
Springview	Keyapaha		21	70.6	− 0.8	105	25	48	9	45	4.21	+ 1.01	2.35	0	10	13	12	6	nw.	C. L. Phelps.
Stanton	Stanton	1,472	21	71.9	+ 0.1	100	25	52	16	38	1.65	− 1.61	0.67	0	5	18	13	0	se.	Alfred Pont.
Stratton	Hitchcock	2,804	17								5.86	+ 3.07	1.72	0	11					Miss Stella Vennum.
Superior	Nuckolls	1,574	28								5.10	+ 1.97	3.75	0	6					F. V. Bishop.
Syracuse	Otoe	1,059	21	75.6	+ 0.7	102	25	52	3†	42	2.50	− 1.09	0.67	0	9	17	5	9	se.	W. N. Hunter.
Table Rock	Pawnee	1,023	24								3.01	− 0.30	1.19	0	9	21	5	5	s.	E. D. Howe.
Tecumseh	Johnson	1,113																		L. E. Pratt.
Tekamah	Burt	1,060	23	73.4	+ 0.2	99	12†	53	11	41	4.08	+ 0.12	1.55	0	12	12	4	15	n.	Dr. A. D. Nesbit.
University Farm	Lancaster		27	75.7	+ 0.9	102	25	53	3	43	4.15	+ 0.25	2.11	0	9	12	15	4		S. W. Perin.
Valentine	Cherry	2,613	24	69.0	− 2.3	100	25	47	9	46	2.56	− 0.26	0.74	0	14	13	17	1	e.	U. S. Weather Bureau.*
Wahoo	Saunders	1,187	10								2.84	− 1.43	1.25	0	7	19	12	0		W. T. Mauck.
Wakefield	Dixon	1,387	18	71.0	− 0.7	98	25	51	9	39	7.88	+ 3.99	3.38	0	9	17	10	4	s.	I. H. Weaver.
Walthill	Thurston		9	73.2[m]		101	25†	50	11	41[m]					6					E. W. Rossiter.
Watertown	Buffalo	2,299	7								1.05		0.50	0	6	14	16	1	s.	R. E. Swift.
Wauneta	Chase	2,935	14								2.78	− 0.42	0.88	0	9					C. D. Fuller.
Weeping Water	Cass	1,080	35	75.6		104	25	51	3†	49	3.31	− 0.70	2.18	0	10	18	5	8	s.	S. W. Orton.
Westpoint	Cuming	1,313																		J. C. Elliott.
Wisner	do	1,380	17								1.57	− 1.84	0.70	0	7	28	2	1		F. C. Evans.
York	York	1,633	22	75.1	− 0.3	101	12	51	10	43	2.93	− 0.62	1.00	0	6	18	11	2	se.	A. T. Giauque.
Iowa.																				
Afton	Union	1,212	18	78.1	− 1.8	91	25†	43	4	33	3.68	− 0.75	0.70	0	10	9	15	7	sw.	N. W. Rowell.
Allerton	Wayne		10	74.1	+ 1.0	101	25	46	4	36	3.20	− 3.62	0.75	0	10	18	9	4	nw.	Mrs. Geo. Shriver.
Alton	Sioux	1,305	7	70.2		97	25	47	2	43	2.61		0.60	0	11	14	15	2	nw.	W. S. Slagle.
Atlantic	Cass	1,164	21	73.2	+ 1.9	99	25	49	4	41	2.88	− 0.60	1.77	0	13	13	9	9	ne.	Thos. H. Whitney.
Audubon	Audubon	1,301	18	70.6	− 1.2	93	25	49	4	35	3.04	− 0.68	1.40	0	12	13	4	14	se.	Geo. E. Kellogg.
Bedford	Taylor		12	73.4	− 0.5	101	25	49	4	39	3.59	− 1.47	1.05	0	9	18	4	9	se.	E. E. Healy.
Centerville	Appanoose		2	74.5		99	25	45	5	36	1.84		0.55	0	7	24	4	3	s.	Gordon Peacock, jr.
Chariton	Lucas	1,042	17	71.5	− 1.6	100	25	44	4	45	2.24	− 2.76	0.68	0	7	10	10	11	sw.	C. C. Burr.
Clarinda	Page	1,009	22	74.2	0.0	100	25	52	4	37	5.50	+ 1.47	1.48	0	13	14	8	9	s.	A. S. Van Sandt.
Corning	Adams	1,117	20	72.6	+ 0.1	99	25	45	5	39	3.55	− 0.66	0.94	0	9	15	7	9	se.	Jerome Smith.
Corydon	Wayne	1,101	19	74.0	+ 0.4	101	25	43	4	38	2.38	− 1.94	1.06	0	10	10	8	13	sw.	May C. Miller.
Council Bluffs	Pottawattamie		2	73.3		99	25	53	4†	36	4.94		1.84	0	10	11	8	12	se.	B. W. Crossley.
Creston	Union	1,312	7	71.6		96	25	51	4	35	4.26		1.33	0	13	12	10	9	se.	O. J. Colby.
Cumberland	Cass		13								3.61	− 0.37	1.90	0	9	23	4	4	sw.	J. H. Roppert.
Denison	Crawford	1,180	18	71.0	− 0.9	96	25	50	2†	42	3.82	+ 0.06	1.19	0	10	25	4	2	s.	W. C. Van Ness.
Elliott	Montgomery		7	72.6		95	31	52	4	37	2.82		1.02	0	9	18	10	3	s.	C. H. Westrope.
Greenfield	Adair		20	72.2	− 0.2	96	25	48	4	33	4.00	+ 0.46	2.35	0	9	9	19	3	sw.	R. B. Oldham.
Harlan	Shelby	1,182	13	71.2	− 1.0	97	25	49	4	43	2.69	− 1.53	1.35	0	8	8	15	8	sw.	C. A. Reynolds.
Inwood	Lyon	1,474	8	70.3		101	25	47	1	43	1.63		0.40	0	8	14	12	5	nw.	F. B. Hanson.
Lake Park	Dickinson	1,479		69.4		94	25	43	3	35	3.06		0.94	0	8	15	12	4	nw.	A. E. Woodruff.
Lamoni	Decatur	1,120	5	72.9		96	28	48	4	33	5.94		1.66	0	12	16	1	14	s.	T. J. Fitzpatrick.
Larrabee	Cherokee	1,266	22	70.6	− 0.6	94	25	45	3	41	2.66	− 0.82	0.64	0	8	13	15	3	se.	R. C. Carnahan.
Le Mars	Plymouth	1,224	16	69.3	− 2.2	89	25	48	2	32	2.75	− 0.13	0.84	0	11	16	15	0	se.	G. A. C. Clarke.
Lenox	Taylor	1,250	17	72.8	− 0.1	93	25†	52	4	30	5.75	+ 1.63	2.30	0	10	21	5	5	s.	J. L. Hurley.
Leon	Decatur	1,120	10	73.3	+ 0.2	96	25	49	4	33	3.87	− 2.07	1.95	0	8	9	12	10	se.	Morris Gardner.
Little Sioux	Harrison		7	73.2		101	25	49	9	46	2.46		0.87	0	10	18	7	6	se.	Geo. H. Gibson.
Logan	do	928	45	72.4	− 0.3	100	25	51	11	46	2.29	− 1.45	0.81	0	7	11	17	3	se.	Glenn H. Stern.
Mount Ayr	Ringgold	1,236	19	73.4	− 0.6	98	25	50	10	34	3.66	− 0.09	1.30	0	11	13	11	7	s.	Alex Maxwell.
Murray	Clarke		21	73.2	0.0	101	25	47	4	35	2.62	− 1.19	0.45	0	10	6	20	5	s.	N. T. Ashley.
Northboro	Page			75.0		100	25	51	4	35	4.96		2.45	0	7	19	2	10	se.	J. N. Darby.
Odebolt	Sac		15	71.9	− 1.8	98	25	48	2	40	5.25	+ 1.65	3.35	0	9	25	4	2		E. Starner.
Onawa	Monona	1,051	12	73.6	− 0.6	97	25	57	2†	32	7.66	+ 2.52	3.20	0	10	17	12	2	nw.	C. G. Perkins.
Pacific Junction	Mills	960	13	72.8	− 0.7	97	31	52	9	41	2.62	− 1.21	1.24	0	4	15	16	0	s.	H. H. McCartney.
Rock Rapids	Lyon	1,358	13																	W. C. Wyckoff.
Sheldon	O'Brien	1,422	12	69.9	− 1.4	96	25	49	1†	40	4.56	+ 0.88	1.02	0	12	15	10	6	se.	Geo. Aupperle.
Sibley	Osceola	1,212	19	67.2	− 1.7	93	25	47	3	36	3.45	− 0.21	0.57	0	14	16	7	8	n.	H. G. Doolittle.
Sioux Center	Sioux		12	69.8	− 1.3	92	25	49	2	33	3.61	− 0.02	1.26	0	8	17	8	6	e.	J. de Ruyter.
Sioux City	Woodbury	1,135	23	71.4	− 1.2	97	25	53	2	35	7.03	+ 4.03	4.31	0	13	19	8	4	nw.	U. S. Weather Bureau.
Spencer	Clay		2	72.5		89	24	40	14	46	3.40		0.71	0	8				w.	S. Gillespie.
Thurman	Fremont		15	74.0	+ 0.2	96	30†	50	4	38	2.16	− 2.23	0.96	0	7	5	17	9		C. R. Paul.
Washta	Cherokee	1,157	14	70.2	− 2.4	94	25	50	1†	38	5.35	+ 2.57	2.70	0	9	20	9	2	s.	H. L. Folter.
Kansas.																				
Abilene	Dickinson	1,157	17								8.80	+ 6.02	2.36	0	9	14	9	8	sw.	T. W. Sherman.
Agricultural College	Riley	1,100	54	78.5	+ 1.7	104	28	51	1	42	3.38	− 0.24	1.20	0	8	16	6	9	sw.	Prof. J. O. Hamilton.
Alton	Osborne	1,651	10	76.7		100	30	53	10	39	9.44	+ 6.86	4.87	0	7	16	10	5	se.	H. A. Storer.
Atchison	Atchison	973	21								3.35	− 1.18	1.52	0	10	22	3	6	sw.	Prof. E. M. Stahl.
Beloit	Mitchell	1,383	17	76.6		98	27	50	1	39	6.88	+ 4.14	1.60	0	11	18	8	5	se.	F. A. Slack.
Blakeman	Rawlins	2,894	15	70.9		98	25	47	9	48	4.10	+ 1.52	1.26	0	10	22	0	9	s.	C. L. Henderson.
Blue Rapids	Marshall	1,105	6								2.48		0.79	0	7	17	1	13	sw.	M. Norton.
Cenralia	Nemaha	1,256	3	77.3		104	28	53	4†	37	2.96		0.72	0	8	20	3	8	sw.	N. S. Hazen.
Chapman	Dickinson	1,113	8	78.3		105	26†	52	9	43	4.52		2.00	0	5	10[i]	10[i]	2[i]		E. F. Halbert.
Clay Center	Clay	1,203	11	78.9		106	28	52	1	44	5.18	+ 0.78	1.60	0	7	18	4	9	s.	O. L. Slade.
Colby	Thomas	3,138	21	73.4	− 1.2	102	11	50	9†	43	4.48	+ 2.03	1.60	0	10	19	8	4	sw.	G. H. Kinkle.
Concordia	Cloud	1,398	28	77.3	+ 0.8	101	25	55	1	35	5.18	+ 2.37	2.03	0	11	9	16	6	s.	U. S. Weather Bureau.
Densmore	Norton	2,200	3	74.6		98	12	54	9	37	7.86		2.20	0	9	12	13	6	se.	J. J. Griffith.
Dresden	Decatur	2,731	18	72.4	− 3.0	98	25†	52	9	36	4.85	+ 1.97	1.08	0	8	18	6	7	se.	Jacob Bock.
Ellsworth	Ellsworth	1,537	8	76.8		107	26	52	3†	45	3.92		1.06	0	9	14	14	3	s.	Geo. Seitz.
Emmett	Pottawatomie	1,024									3.11		0.99	0	9	17	9	5	s.	C. O. Ball.
Enterprise	Dickinson	1,144	10	79.2		105	28	55	10	39	4.30		1.86	0	7	21	8	2	s.	J. R. Clark.
Eskridge	Wabaunsee	1,412	6	77.2		103	26	55	4†	31	5.41		1.97	0	8	21	9	1	s.	Geo. D. West.
Farnsworth	Lane	2,850	11	74.4	− 2.1	100	26	49	9	44	4.87	+ 2.28	1.73	0	9	23	5	3	se.	C. M. Jennison.
Fort Scott	Bourbon	857	37	79.6	+ 1.2	101	13†	52	4	34	1.74	− 2.10	0.80	0	5	23	0	8	sw.	E. A. Shaver.
Frankfort	Marshall	1,146	18	78.8	+ 1.7	104	28	51	5	39	2.76	− 2.47	0.76	0	7	19[a]	9[a]	2[a]	s.	W. W. Watson.
Garnett	Anderson	950	6	77.0		101	27	52	4	35	3.23		0.68	0	9	12	17	2	s.	D. D. Judy.
Goodland	Sherman	3,687	5																	C. C. Calvert.

TABLE 1.—*Climatological data for August, 1912. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Kansas—Continued.																				
Gove	Gove	2,750	23																	Jesse Royer.
Hanover	Washington	1,225	15	77.8		101	25†	53	10	37	2.06	− 2.37	0.60	0	8	19	7	5	s.	A. Jaedicke, jr.
Harrison	Jewell	1,804	11	74.6	− 0.7	97	27	52	1	37	7.43	+ 4.43	3.03	0	10	21	4	6	s.	Mahlon Tegley.
Hays	Ellis	2,000	44	77.3	+ 0.4	104	27	53	9	44	3.52	+ 0.49	0.86	0	11	10	15	6	sw.	G. K. Helder.
Hill City	Graham	4	4	75.6		101	29	53	9	43	6.47		3.11	0	8	19	9	3	s.	C. A. G. Inlow.
Horton	Brown	1,188	23	75.6	0.0	102	28	53	4	33	3.66	− 0.46	1.20	0	12	16	10	5	sw.	Mrs. S. C. Belden.
Hoxie	Sheridan	2,700	14	74.9	− 1.5	100	25	54	25	46	7.27	+ 4.63	2.80	0	8	13	14	4	s.	I. L. Vinson.
Lawrence	Douglas	997	44	77.7	+ 0.4	99	27†	55	4	34	4.17	− 0.11	1.43	0	6	15[a]	11[a]	4[a]	sw.	Prof. H. P. Cady.
Leavenworth	Leavenworth	913	68	77.9	+ 1.7	101	28	54	3	31	3.71	− 0.50	1.20	0	12	19	1	11	se.	Dr. A. F. Yohe.
Lebanon	Smith	1,812	14	74.6	− 1.8	95	26†	54	9	32	4.91	+ 2.31	1.50	0	7	18	0	13	n.	E. V. Bower.
Leoti	Wichita	3,300	9	73.2		100	26†	52	9	43	5.36		1.38	0	11	20	6	5	s.	Fred Burnham.
Lincoln	Lincoln	1,374		79.2		107	25	53	10	48	2.19		0.77	0	9	16	8	7	s.	R. W. Greene.
McCracken	Rush	2,139		77.8		105	26	52	9	45	2.90		1.00	0	9	15	16	0	sw.	E. D. Floyd.
Minneapolis	Ottawa	1,259	22	77.8	+ 0.6	101	25	57	3†	32	6.00	+ 2.86	2.87	0	10	22	4	5	s.	J. L. Steele.
Moran	Allen	1,098	16	79.7	+ 1.7	102	27†	53	4	38	2.86	− 2.09	1.98	0	5	19	9	13	sw.	C. J. Norton.
Natoma	Osborne	1,834	3								4.86		1.60	0	5	21	5	5	se.	C. O. Hunt.
Norton	Norton	2,284	14	73.6	− 1.0	98	12	53	9	38	5.60	+ 3.16	1.28	0	9	21	7	3	se.	Sim Sieffel.
Oberlin	Decatur	2,539	25								5.18	+ 2.29	2.10	0	10	21	7	3	se.	I. K. Huber.
Oketo	Marsuall	1,194	4	77.4		100	27	55	3†	35	5.46		2.14	0	9	14	13	4	sw.	J. A. Church.
Olathe	Johnson	1,032	17	76.4	− 0.2	97	27†	52	4	35	5.52	+ 0.81	1.89	0	10	18	10	3	sw.	Dr. S. B. S. Wilson.
Ottawa	Franklin	926	18	77.6	+ 1.4	100	27†	55	2	34	3.33	− 1.50	1.24	0	6	20	6	5	s.	W. J. Sheldon.
Phillipsburg	Phillips	1,939	21	76.8	− 0.1	102	27	54	10	42	3.44	+ 0.63	0.85	0	9	18	9	4	ne.	N. E. Bailey.
Plainville	Rooks	2,156	6								5.85		2.00	0	9	20	8	3	se.	P. D. Spellman.
Pleasanton	Linn	862	10	78.8	+ 2.3	101	28	51	4†	34	2.49	− 1.53	1.05	0	6	18	12	1	sw.	B. F. Blaker.
Quenemo	Osage	941									1.93		0.47	0	8	21	9	1	sw.	R. L. Graham.
Republic	Republic	1,495	9	75.0		98	27	50	7	39	8.70		3.55	0	11					J. W. Ambrose.
Russell	Russell	1,834	13	78.2	+ 0.8	103	25†	54	9†	41	4.06	+ 1.41	1.34	0	8	20	5	6	s.	Robert Brebner.
Russell Springs	Logan		2	73.6		101	26	50	16	47	7.76		3.00	0	11	23	3	5	nw.	D. J. Hufto.
St. Francis	Cheyenne	3,288	4	71.4		96	25†	48	9	43	4.69		1.22	0	10	13	12	6	se.	J. E. Uplinger.
Salina	Saline	1,227	28	78.4	− 0.8	105	28	54	3†	34	4.81	+ 1.88	0.92	0	11	13[d]	14[d]	0[d]	s.	Prof. A. W. Jones.
Scott	Scott	2,971	6	74.5		101	26	54	9	45	6.00		2.34	0	8	21	7	3	s.	J. V. Loughran.
Smith Center	Smith	1,800	2	75.8		101	30	51	1	40	6.63		1.70	0	11	17	9	5	se.	W. H. Nelson.
Topeka	Shawnee	997	26	78.6	+ 2.6	101	28	56	4	29	3.03	− 1.26	1.09	0	9	20	10	1	s.	U. S. Weather Bureau.
Tribune	Greeley	3,612	13								3.25	+ 1.60	1.60	0	12	15	8	8	s.	Charles E. Cassell.
Valley Falls	Jefferson	913	13	76.6	+ 1.2	101	27†	52	3†	35	3.74	− 0.45	1.81	0	8	20	9	2	s.	Miss Nettie Maxwell.
Vinland	Douglas	880	3								3.87		1.25	0	7					A. Schick.
Wakeeney	Trego	2,456	29	76.0	− 1.0	104	26	53	9	43	2.84	+ 0.54	0.75	0	10	22	4	5	s.	A. S. Peacock.
Wallace	Wallace	3,303	42	72.0	− 2.8	99	26†	50	12	47	6.19	+ 4.22	2.50	0	7	4	23	4	sw.	M. T. Griggs.
Wamego	Pottawatomie	1,002	19								3.55	− 1.09	1.40	0	9	13	13	5	sw.	M. L. Stone.
Missouri.																				
Amoret	Bates	850	4	79.0		102	28	51	4	34	2.86		0.90	0	7	16[a]	6[a]	8[a]	sw.	Darby Fruit Farm.
Appleton City	St. Clair	853	23	79.9	+ 2.4	100	12†	57	10	36	3.42	− 0.58	1.52	0	3	7	24	0	sw.	T. C. Brown.
Arthur	Vernon	767	20	77.2	+ 1.0	99	26†	50	4	37	3.10	− 0.87	1.75	0	5	16	14	1	sw.	J. T. Armstrong.
Avalon	Livingston		28	76.2	− 0.5	101	28	50	4	34	5.56	+ 1.60	2.10	0	11	18	8	5	sw.	F. G. Ashbaugh.
Bethany	Harrison	881	23	76.8	+ 2.7	94	28†	58	12	28	4.54	+ 0.37	1.66	0	8	18	12	1	se.	W. H. Skinner.
Bolivar	Polk	1,070	25	79.0	+ 2.4	101	19	48	4	37	2.93	− 0.73	1.50	0	4	23	8	0	s.	A. C. Fink.
Boonville	Cooper	600	37								4.62	+ 1.22	2.00	0	15	15	4	12	sw.	C. Randecker.
Brunswick	Chariton	652	34	75.2	− 0.2	95	28	52	4	27	5.14	+ 1.12	1.15	0	12	15	5	11	sw.	Louis Benecke.
Clinton	Henry	800	26	79.1		104	27	52	4†	33	1.65	− 1.70	0.80	0	4	19	11	1	se.	A. E. Derwent, M. D.
Columbia	Boone	784	23	75.8	+ 1.1	97	28	51	4	27	4.91	+ 1.87	1.24	0	15	16	6	9	s.	U. S. Weather Bureau.
Crocker	Pulaski	1,124	2	75.2		100	29	50	5	33	4.20		1.60	0	9	19	10	2	sw.	Ira H. Stephens.
Eldon	Miller		1	78.3		99	19†	50	4	32	6.40		1.72	0	10	16	14	1	s.	G. M. Tinsley, M. D.
Eldorado Springs	Cedar	750	8	78.6		104	19	49	4	39	2.81		2.15	0	4	15[a]	10[a]	5[a]	sw.	Samuel Graham.
Fayette	Howard	725	30	75.6	− 0.4	95	28†	51	4	27	5.58	+ 2.62	1.66	0	12	17	6	8		Prof. T. B. Smith.
Fulton	Callaway	818	22	76.9	+ 0.7	99	28	47	4†	32	2.72	− 0.58	0.88	0	7					Russel Johnston.
Glasgow	Howard	618	34								4.84	+ 1.74	0.96	0	12	19	1	11	s.	J. J. Shaughnessy.
Grant City	Worth	1,130	21	75.0	+ 0.5	101	25†	53	4†	32	3.48	− 0.40	0.62	0	9	19	0	12	nw.	W. H. Campbell.
Harrisonville	Cass	912	41	77.6	+ 2.3	101	28	53	4	33	4.46	+ 0.41	1.46	0	8	13	0	18	sw.	A. J. Sharp.
Hazelhurst	Livingston		20								5.48	+ 2.07	2.01	0	10					W. H. Baker.
Hermann	Gasconade	482	39								5.30	+ 2.40	1.00	0	12	10	9	12	s.	C. T. Maushund.
Houston	Texas	1,280	21	73.2	− 1.9	95	27†	44	4	36	4.86	+ 1.39	1.37	0	9	9	22	0	s.	E. Dempsey.
Jefferson City	Cole	628	31	75.0	− 1.7	98	28†	48	4	35	3.96	+ 1.37	0.75	0	11	19	1	11	s.	Miss Emma Swift.
Kansas City	Jackson	963	25	77.2	+ 1.4	98	28	58	3	25	3.75	− 1.00	2.28	0	10	19	4	8	s.	U. S. Weather Bureau.
Kidder	Caldwell	1,017	22	74.8	− 0.4	96	28	53	3	27	6.38	+ 2.45	1.50	0	12	21	5	5	sw.	J. F. Sharp.
Lamonte	Pettis	863	25	76.0		96	19†	48	4	29	5.09	+ 1.61	1.70	0	10	15	10	6	s.	J. Ed. Hall.
Lebanon	Laclede	1,265	24	75.4	− 1.0	93	28†	49	4	30	3.89	+ 0.69	1.44	0	8	15	10	6	se.	M. W. Serl.
Lexington	Lafayette	813	31	77.0	+ 1.4	97	28	50	4	30	5.71	+ 2.47	2.24	0	11	20	0	11	s.	J. W. Keithley.
Liberty	Clay	864	25	76.2	− 0.1	97	28	52	4	26	4.52	+ 0.26	1.50	0	8	13	13	5	sw.	W. C. Wilmott.
Lockwood	Dade	1,088																		C. S. Crow.
Marshall	Saline	779	22	75.5	− 0.5	96	28	50	4	30	4.66	+ 1.07	1.69	0	11	19[b]	5[b]	5[b]	sw.	Prof. W. H. Black.
Maryville	Nodaway	1,160	23	75.8	+ 1.3	101	25	51	4	37	1.88	− 2.58	0.42	0	10	22	2	7	s.	J. R. Brink.
Mount Vernon	Lawrence	1,480	36	77.2	− 0.4	97	27	54	4†	38	4.09	− 0.01	2.52	0	3	21	6	4	sw.	J. R. White & Son.
Nevada	Vernon	860	19								2.00	− 1.87	0.90	0	4	23	8	0	sw.	C. Jewell.
Oregon	Holt	1,113	58	76.2	+ 1.1	99	28	54	3	32	2.86	− 1.44	1.44	0	11	20	5	6	s.	Tom Curry.
Pattonsburg	Daviess																			Wm. Burton.
Rolla	Phelps	1,139	31	75.4	+ 0.4	94	19†	53	5	30	7.05	+ 3.33	1.68	0	15	17	8	6	sw.	Prof. P. J. Wilkins.
St. Charles	St. Charles	614	35	75.8	− 0.6	97	28	49	4	29	3.64	+ 0.69	1.10	0	10	16	7	8	s.	L. C. Saeger.
St. Joseph	Buchanan	967	41	77.0		99	28	55	3	29	4.23	+ 0.38	1.87	0	11	17	7	7	s.	U. S. Weather Bureau.
St. Louis (1)	St. Louis City	567	40	76.2	− 1.0	95	28	55	3	25	2.65	− 0.01	0.76	0	14	12	11	8	s.	Do.
St. Louis (2)	do.	578	2	76.8		96	28	55	4	27	2.68		0.55	0	11	13[a]	8[a]	9[a]	w.	St. Louis University.
Sublett	Adair	1,000	33	74.2	− 0.2	98	31	42	4	37	7.01	+ 3.74	2.00	0	8	8	14	9	w.	Lewis Spriggs.
Tarkio	Atchison		1	74.7		98	28	53	4†	40	1.88		0.54	0	6	20[c]	3[c]	5[c]	s.	Prof. M. H. Rees.
Trenton	Grundy	812	18	74.8	− 0.2	94	19	51	4	29	6.64	+ 3.20	2.65	0	12	17	3	11	s.	W. H. Estes.
Unionville	Putnam	1,072	20	72.8	− 2.8	96	28	43	4	34	4.33	+ 0.32	1.60	0	12	10	8	13	s.	Geo. W. Davis.
Warrensburg	Johnson	883	33	76.4	− 0.4	97	28	52	4	28	6.97	+ 3.45	1.80	0	11	17	7	7	sw.	A. F. Smithson.
Warrenton	Warren	865	22	75.4	− 1.2	98	28	50	4	31	4.09	+ 1.35	0.79	0	12	14	3	14	s.	Prof. John H. Frick.
Warsaw	Benton	700	9	79.3		102	28	46	4	37	2.97		0.84	0	12	15	16	0	sw.	J. R. Smith, M. D.
Wheatland	Hickory	920	21								1.95	− 1.39	1.55	0	4	19	12	0	s.	Mrs. S. A. Jackson.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ All temperature normals for Montana used in this table have been reduced to the 33-year period.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 6, Missouri Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Arapahoe	Bighorn															.10		.35	.40	.15								.02	.02				1.04
Barnum	Powder																																
Basin	Bighorn																																
Bennett	North Platte																																
Big Creek Station	do	.16								.28						.20													.32	.40		.26	1.62
Burns	South Platte	.75	.06	.60	.16			.04							1.08	.32	.16													.03	.20		3.40
Casper	North Platte			.27					.40		.10				.07	.20	.24	.29	.27								.20				.06		2.10
Centennial	do	.03	.04				.01	.06	T.	T.				T.		.06	T.									.02	.02	.02		.01	.02	0.29
Cheyenne	South Platte	.09	T.	.02			.04	.03			T.		T.	T.		.07	.02	T.	.62							.15				.40		1.44
Chugwater	North Platte	.80	.10	.34	T.			.10								.95	.08	T.											.03	.25		2.65
Clark	Yellowstone	.38	.02	.60			.03	.14			T.					.25	.01	.11									T.	.36				1.90
Cody	Bighorn	.19		.03			.11	.33								.40	.25			.02						T.		.02				1.35
Crazy Creek	Yellowstone	.06	.03	.14	.02	.01	.01								.03	.25	.05	.10	.10	.10							.06	.15	.15				1.26
Dome Lake	Tongue	.80	.40	.35				.36						.20		.30	.15	.35	.10	.15													3.16
Douglas	North Platte																																
Dubois	Bighorn	.04	.15	.07		.09	.38										.15	.45									.04	.09					1.46
Eatons Ranch	Tongue		.92				.25											.32	.15														1.64
Echeta	Powder			.20				.30									.44		.22						T.								1.16
Elk Mountain	North Platte		.19					.46								.02		.17	.14											.70			1.68
Encampment	do	.40						.04	.30							.10	.02			.15							.12	.18	.28	.18	.02		1.79
Ervay	Powder	T.		.10	T.		T.	.16		T.						.15	T.	.10	T.								T.		.04	.07			0.62
Fort Laramie	North Platte	T.	.22	.02			T.	T.	.45								.55		.05	T.										.10			1.39
Foxpark	do	.10														.10													.10	.15	.25		0.70
Germania	Bighorn	.50		.24			T.	.80		T.	.10						.30	.40		.30													2.64
Gillette	Powder		.39	.19				.09								3.26	.10		.34		.17					.08							4.62
Horse Creek	Bighorn	.30		.56	.11		.06	.24								.22	.14	.15	.23	.05													2.06
Hunters Station	Powder	.28	.70	.15	.07		.08	.26							.46	.24	.10	.34	.17	.09													2.94
Hyattville	Bighorn																																
Jireh	Niobrara	.12		.03	.06		.24	.52								.21	.09		.05	.08									.04	.18			1.62
Kirtley	do	.05	.18		.46		.05	.94								.06	.05		.29		.07									.07			2.22
Kirwin	Bighorn	.80	.05	.10				.20	.05						.12	.20	.15	.32	.22	.10								T.	.15				2.46
Knowles	Cheyenne	T.	1.51	.18	.09													1.06	.39										.12				3.35
Lagrange	North Platte			.05				.08								4.11	.52			.37	.03						T.	.01		.12	.02		5.31
Lander	Bighorn	T.	.01	.01		.06		.08								.01		.24	T.								T.	.11	T.				0.52
Laramie	North Platte	.33	T.	T.	.07	.08	T.							T.		.51		T.									T.	T.	T.	T.	.53		1.52
Leo	do																																
Lolabama Ranch	Yellowstone		.20			.10	.05										.10	.30										.23					0.98
Lovell	Bighorn															.55	.02		T.	T.							T.						0.57
Lusk	Niobrara				.04	.65											.32												.09				1.10
Manville	do	.10	.03	.05	.03		.03	.45								.18	.03	.07	.01	T.									T.	.17			1.15
Moorcroft	Cheyenne		.05	.30	.09	.05		.06								.13		.01	1.23	.38	.53									.15			2.98
Moore	North Platte			.56			.01	.42					T.			.41	.01	.61	.05										.11	.01	.21			2.40
Newcastle	Cheyenne		.09	.28	.11			.18						.02		.25	T.	T.	.28	T.										T.			1.21
Pathfinder	North Platte	T.		.04			T.	.25								.05	.01	.17	.28								T.		T.	.03			0.83
Pinebluff	South Platte	T.	1.58	.07	.42	T.	.34	T.	.22			.21				.12	.98	.17	.48	.16	.09					T.		.01		.12	.33		5.30
Pine Ridge	Cheyenne			.20		.10	.16									.10	.05	.52	.40	.20									.20				1.93
Powell	Bighorn	.54		.10				.06									.20		.02	.05								.02					0.99
Rawlins	North Platte	.05					.01	.11	.02							.15		.01	.66								.04	.03	.25				1.33
Riverton	Bighorn	3.05					T.	.02								T.		4.05	2.00									T.					9.12
Rockypoint	Powder		.62		.28			.10										.64	.53	.02	.03												2.22
Saratoga	North Platte	.14		.02																	.42						.07	.24	.32	.33		1.54
Seven Mile Creek	do	.15	.06	.07			.05	.47								.40		.05								T.							1.25
Sheridan	Tongue	.05	.16	.20			.08	.02							T.	.01	T.	.53	.05	.06								.01	.01	T.			1.18
Shoshone Dam	Bighorn	.30		.10			.43									.40	.01	.07		.02						.01		.11					1.45
Soldiers Home	Powder																																
South Pass City	North Platte	.91	T.					.09	.12						.05			.23	.04									.09	.07				1.60
Sundance	Cheyenne	.30		.35			.25											.80	.60	.30									.80				3.40
Thermopolis	Bighorn	1.06	.03	.21			.08	.12										.07					.04										1.61
Thornton	Cheyenne		.24	.35	.41			.06							.38	.06		.09	.28													.10	1.97
Ulm	Powder	.80		.17			.05	.03								T.	.24	.40	.35	.04									T.				2.08
Verona	Tongue	.85		.48			T.											.85	.19	.03													2.40
Wheatland	North Platte	T.	.27	.90	.12	T.		T.	.32								.52	.01	.02							T.	T.		.01	.22	.04		2.43
Wiants Ranch	do	.08	T.				T.									.01			.23								.11	.02	.48	.23			1.16
Wiley	Bighorn																																
Woodrock	Tongue	.22	.38	.14	.08		.08	.07		.04						.75	.07	.17		.75							T.	T.					2.75
Worland	Bighorn		.24	.10			12	.06									.48	.11	.19	.08													1.38
Wyncote	North Platte	.24	.04	.02	.02		13	.40								.51	.12		.38											.17	.07			2.10
Yellowstone Park	Yellowstone	.35	.05	.03	T.	.04	.04	.01								.21	T.	.07	.10	.07							.42	.16	.02			.09		1.66
Fairview Dome	do	.38	T.	.18			.14	.18								.20	.02	.10	.27							T.	.12		.18	T.				1.77
Fountain	Madison	.60														.30	.10		.10	.20								.60				.10	2.00
Gallatin	Gallatin	.20	.40	.10		T.										.40			.30	T.						T.			.30				1.70
Grand Canyon	Yellowstone	.75	.07	.08		.02		.10								.15	.11	.10	.39	.24							.01	.53	.10	.50				3.15
Lake Yellowstone	do	.06		.01												.02	.05	.03	.08	1.00								.01	.01					1.27
Norris	Madison																																
Riverside	do	.10	.08												.43			12										.34					1.07
Sylvan Pass	Bighorn	1.01	.01	.02	.01	.08		.24										.97		.83							.24		.31			.08	3.80
Thumb	Yellowstone																																
Tower Falls	do	.48	.10	.06		.05	.08									.13		.10	.34	.15							T.	.48	.31	.03				2.31
Up. Geyser Basin	Madison	1.90	.70													.70		.90	.60		1.40							.70	.40					7.30
Montana.																																	
Adel	Missouri	.16	.85	.14	T.		T.	T.		.12							.01		.78	.22	T.							T.		.04		.10	2.42
Agricultural college	Gallatin	.08	.01	.40			T.	.08								.04	.07	.20									.51			.24		T.	1.63
Augusta	Missouri	.45	.05	.50	.10					.19									.82	.73										.26			3.10
Babb	Saint Marys			.75										T.			.49		T.							.07			T.			1.31
Bald Butte	Missouri	.29	.13	.12	.05	T.				.08						.01			.87	.15							.05				.45		2.20
Bigtimber	Yellowstone	.10			.50											.05			.44														1.09
Bigtimber Creek	do	.34	.14	.84	T.			.02		T.						.16		.03	.46								.34	.26	.10			.20	2.89
Billings	do	T.	.53	T.	.08		.08	.02			.02	.02					.04		.01	.08	.01						.04	.02					0.95
Birch Creek	Missouri			.39						.03						.23			*	.73													1.38
Blackleaf	do	.31	T.	1.05						.01						.25	.24		.02	.70													2.58
Boulder Nursery	Jefferson	.34	.05	.23	T.		T.			.18	T.					T.	.04		.72	.06							T.	.06	.01	.06		.01		1.76
Bowen	do	.53	.18	.22			.01												.06	.10												.06		1.16
Bridger	Yellowstone	T.		1.23			.03									.13			.16															1.55
Broadview	do		.68		.05					T.		.02					.25			.54							T.							1.54
Busby	do	.01	.54		.21		.04					.38	.10				T.		.44	.07	.50								.05					2.34
Busteed	do	.07	T.	.04	.11		T.				T.	T.				T.	.01		.57	.12							.05	T.	T.				0.97
Cabin Creek	Jefferson	.72	.46	.15	.30	.03									.01	.05			.39	.69						.03	.05					.07		2.95
Canyon Ferry	Missouri	.16	.01	.20						.16							.18		.46	.03							.14	.01	.07					1.42
Cascade	do	.16	.10	.17	.04					.08						T.	.01		.76	.55							.01		.15		.02			2.05
Chessman Reservoir	do	.35	.41	.24						.23						.05	.17		.68	.18							.16		18		.05			2.70

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Montana—Contd.																																	
Chester	Marias	.75		.21	.81					.21																		.13	.16	.46			2.73
Chinook	Milk	.04	.19	T.							T.		.31	.08		.06	.20	T.	.34	.62	T.							.02		.50	.03		2.39
Clearcreek	do	.48			.27								T.				.65		1.23	.54							T.	T.		.26		T.	3.43
Clemons	Missouri	.29	.01	.30	.03	.01	T.			.13							.34		.56	.73	T.							.05		.25		T.	2.70
Clydepark	Yellowstone	.27	T.	.38	T.		T.	1.00		T.			T.			.08		.07	T.	T.							.27		.07	T.	T.	1.15
Copper	Missouri	.30		.15	.25						.03					.05	.04	.02	T.			.02					T.	T.	.23		.12	1.91
Crow Agency	Bighorn	T.	.70				.01					.23	.02			.33	.05		.36	.04	T.											1.74
Culbertson	Missouri				.25	.10							.10				.15		1.00	1.25	.70						T.	T.		T.			3.55
Cut Bank	Marias	.48	T.	.58													.38			.41													1.85
Denton	Missouri	.16	T.	.06	.30						.06					.15	.02		.23	.24								.06	.03	.20		T.	1.51
Dillon	Jefferson	1.07	.68	1.22					T.								.61		.12	.07							.10		.02	.01		3.90
Dry Creek	Missouri	.08		1.09		T.	.16	.17								.20			.75								.20	.36	.10		T.	3.11
Dry Wolf Camp	do	.20	.08	.05	1.02		.01			.15					.01	T.			.37	.11						.14			.26		.23		2.63
Dunkirk	Marias	.37		.11	.17					T.							.29		.03	.53							T.	T.	T.			1.50
Ekalaka	Little Missouri.		.60																1.00													1.60
Elkhorn	Jefferson	.42	.13	.43	.02		.06	T.	.01	.12	T.					T.	.08		.30	.03	T.						T.	.12	.04	.08		T.	1.84
Fallon	Yellowstone		T.									T.	.10				.33	1.00		1.08												2.51
Findon		.28	.06	.04	.50		.22				.11					.09	.01		.63								.25	.27	.12		T.	2.58
Fish Creek	Jefferson	.85	.50	.20						.20						.30			.48	T.							.26		.08		.06	2.93
Flathead Creek	Yellowstone		.19	.15	.24	.06	T.	.29		.01						.04		.15	.27	.03							.30		.36		.12	2.21
Forsyth	do		.03									.05					.20									T.						0.28
Fort Benton	Missouri			.03	.75		.35			.30									.90	.85						.30		.01		.20		3.45
Fort Shaw	do	.12	.01	T.	.52					.17							.02	.75	.78													2.58
Foster	Bighorn		T.	T.	T.		.01									T.			.22	.33								T.				0.56
Glasgow	Milk		.30		.27								T.				.80			2.85	.90											5.12
Glendive	Yellowstone				.25			.02				T.	.12				.15	T.	3.20	.45	.03						T.		.12			4.34
Goldbutte	Marias	.58	.05	.08	.26												.35		.50								T.	T.	.05			1.87
Graham	Powder		2.08		.46											.53	.12	.04	.99	.15	.03			.10								4.50
Grayling	Madison	.55	.23	.19												.47		.09	.28	.09							T.		.02			1.92
Great Falls	Missouri	.14	.02	.02	.42		.02			.42	.03					T.	T.		.60	1.21								T.		.22			3.10
Half Way House	do	.45		.20				.01	T.	.01							.25	.70	.20									.30	T.	.10			2.22
Harlowton	do	.15	.14		.55																											.01	0.85
Havre	Milk	.26	.03	T.	.08					.04	.02				T.	.03	.45		.58	.49								.04	.01	.20			2.24
Helena	Missouri	.16	.11	.05		T.	T.	T.		.16						T.	.06		.79	.12								.03	T.	.11		.01	1.60
Highwood	do	.25	.01	.20	.05		.04			.05	.12			T.		T.			.10	.16										.28			1.26
Huntley	Yellowstone		.43		.07		.12				.03						.36		.15	.44	T.												1.60
Jones Canyon	Gallatin	.14	.05	.46			.15	T.								.06	.06	.07	.06	.08							.46			.36		T.	1.95
Knobles Ranch	Milk	.38	.20	.11	.10				T.	.01		.03					.45		.15	.80						.07		T.	T.				2.00
Lewistown	Missouri		.19	T.	.15												.17			.23	.11	.01							.09	.13	.08		1.16
Lonetree	do	.15			.80											.15			.98	.68										.25			3.01
Lytle	do	.15	1.12	.88	.09			T.		.06							.04		.68	.64								.03		.29			3.98
Malta	Milk		.48	.01	.02	.03											1.47		1.73	.16								.20		.25			4.35
Medicine Lake	Missouri				.33	.55	T.	.02					.10				.30		.30	1.27													2.87
Mildred	Yellowstone		.15	.05			.02						.11				.26		.52	.58							T.						1.69
Miles City	do	.02	.17	T.								T.					.30	.25	.15	.29								.01	T.				1.19
Norris	Madison	.82	.10	.12													.15		.10	.01								.19		.01			1.50
Nye	Yellowstone	.18	.29	.13	.01		.01				T.	.11			T.	.26	.01	.04		.15													1.19
Olsen Creek	Jefferson	.16	.14	.69						.06		.04				.20	.12			.66								.10		.09			2.26
Pinegrove	Missouri	.32	.83		.23	.12											.23			.25								.09	.05				2.12
Pipestone Pass	Jefferson	.49	.25	.18						.23						.34	.03		.26	T.							.21		.02			T.	2.01
Plevna	Yellowstone		.10		.02			T.					.02				.11	.13	2.06	.05	.03							T.					2.52
Poplar	Missouri				T.	T.							T.				.95	T.	.41	1.45	.15							T.					2.96
Red Lodge	Yellowstone	.45		.88	T.	T.	T.	.17							T.	.18			.06	.10													1.84
Renova	Jefferson	.43	.12	.26						.10							.26		.65									.20		.15			2.17
Ryegate	Missouri	.06	.10	.06	.25													.55	.07	.26	.05		.10	.08									1.58
Savage	Yellowstone					.26		.13				T.	.11				.14		1.09	.88								T.					2.61
Shelby	Marias	.34		.28						.02							.12		.70	.02								.05		.12			1.65
Sidney	Yellowstone			.35							T.		.20				.15	.05	.75	1.06	.29												2.85
Springbrook	do		T.	T.	T.		T.	T.					.11	.01			.05	.01	.56	1.38	.25									T.			2.37
Stearns	Missouri	.07		.04	.13	T.	.21	T.									T.		.68	.56								.08	.09	.05		.03	1.94
Sunlit Farm	Milk	.08	.22	T.	.24	.03						T.	.11		.08	.03	.07		.66	.59								.08	T.	.31	.07	T.	2.57
Sun River Canyon	Missouri	.30	.03	.78	.14					.03						.18	.37		.34	.37								T.	T.	.14		.06	2.74
Trail Creek	Yellowstone	.37	.08	.54	T.		.12									.16		.12	.08								.41			.21		.28	2.37
Utica	Missouri	.21	.05		.29						.04					.07			.55	.11								.02	.10	.23			1.67
Valentine	do	.17	.31														.18		.02	.11								.06		T.			0.85
Valier	Marias	.30			.34					T.	T.						.27		.38	.55										T.			1.84
Virginia City	Jefferson	.70	.21	.17			.02												.25	.52								.25		.03			2.15
Wall Rock Mn'tn	Missouri	.10	.12	.48			.05	.16	.14							.03	.08	.11	.22								T.	.11	.27		.04	.09	1.90
Warm Sp'gs Creek	Madison	.90	.42	.11	.21		.10	.01								.01	.10	.01	.19	.79								.40		.11		.17	3.53
Wheaton	Missouri	.10	.16	.04	.24	T.	T.										.11		.27									.08	.06	.14			1.20
White Sulphur S'gs	do	.30			.42	.05		T.			.06					T.	.12		.18	.02								.08		.18			1.41
Wilder	do	.09	.46	T.	T.		T.									.12	.20		T.	.68	T.								.10				1.65
Wolf Creek	do	.13	.70	.03	T.		T.			.14									.78	.23	T.							.02		.05		.02	2.10
Woodville	Jefferson	.43	.14	.28			T.			.11						.46	.17		.68	T.					T.			T.	T.	.08		T.	2.35
North Dakota.																																	
Aplin	Knife			.58	.24			.50	.16			.01	.26				.40	.01		.76	.10							T.	.11				3.13
Arnegard	Missouri					.16	.05	T.	.07					.32	.10			.09	.14	1.09	.82							T.		.03			2.87
Ashley	do			T.	.04			T.			1.24					.77					T.	T.									.22	.31	2.58
Beach	L. Missouri				.05				.04			.07	.25	T.		.05	.06	.04	1.20	.33	.06												2.15
Belfield	Heart					.16			.11			.13	.25	.02		.20	.72	.01	2.15		.05										T.		3.80
Berthold Agency	Missouri				1.25		T.	.31	T.			.08	.09				.84		.06	.82	.12												3.57
Bismarck	do				.37	.01	.08	.02	T.			.09	.23				.43		.04	.64	.12	.01						T.		.29			2.33
Broncho	Knife				.40			.60	.03			.08	.20				1.39	.05			.15												2.90
Buford	Missouri				.35			.07					.30	.06			.20	.05	.35	.65	.33												2.36
Carson	Heart					.80	T.	.18	.20								.57			.65	T.												3.06
Dickinson	do				T.	T.		T.	.02			.25	.45	.01		.05	.45		T.	1.45	T.							T.		T.			2.68
Edgeley	James							.07	.23				.73					.58			.14			.05							.55	.30	2.65
Energy	Missouri																																
Epping	do				.65	.41			.20								.31		.20	1.50	.56									.13			3.96
Fullerton	James				.06				.16	T.		1.20	.08				.68				.04		T.	T.							.60	.46	3.28
Garrison	Missouri				.65	.14		.02	.17	T.		T.	.23				.56		T.	.45	.16	T.	T.							.74			3.12
Grinnell	do																																
Haley	Grand		T.	.11	.09			T.								T.	.10		.65		.03		~				T.			.10			1.08
Hettinger	do																																
Howard (near)	Missouri				.17	.21	T.	.03	T.		T.	T.	T.	T.	T.		.10	.08	.44	1.42	.38							T.		.11	T.		2.94
Jamestown	James					.45	.06	.24	.01	.68			.65	.25				.55			.05	.10		.10							.50		3.64
Lamoine	Missouri				*	.38		T.	T.			T.	.27				*	.46		*	.69	T.		.11			T.	T.	T.	41	T	2.32
McHenry (near)	James					1.10			1.45				.30			.20	.70	.68		.50	.10	.10							.20	.80			6.13
Marmarth (near)	L. Missouri		.24		.19	.07			T.							T.	.34	.27	.55	T.	T.									T.			1.66

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota—Con.																																	
Marstonmoor	James				.03	.24		T.	T.			.44	.40				.60	.03		.06	.18	T.	.04	T.				T.		T.	.42	.15	2.59
Medora	L. Missouri												.42		.18		.20		1.61													2.41
Melville	James				.30	.23	.30		T.			.57	.13				.87			.17										T.		.40	2.97
Mott	Cannon Ball				.06				.02							.03	.59		.97	.17	.13									.02			1.99
Napoleon	Missouri				.03	2.32				.03			.13					.62				.05	.03								.34		3.55
New England	Cannon Ball				.60											.11	.49		1.05		.05										.01		2.31
New Rockford	James		.18		.56	.13						.45			.22		.48			1.44	.48						.23		.19				4.36
New Salem	Heart				.66			.25				T.	.35				.55			1.16	.05						T.	T.		.10			3.12
Orange	Cannon Ball			.15						.11			.13			.72	.93		.40											.55			2.99
Ranger	L. Missouri																																
Steele	Missouri			.10	.55		T.	.10	T.			1.06	.64				.65			.13	.11	.06	.01	T.					T.	.52		.04	3.97
Turtle Lake	do																																
Washburn	do			T.	.45							T.	.21				.30		.32		T.							T.		.25			1.53
Williston	do			T.	.70		T.	.21			T.	.04		T.			.10		.54	1.01	.08							T.		.16			2.84
South Dakota.																																	
Aberdeen ‖	James																														.83	.34	3.35
Academy	Missouri		.09	.18		T.	.46		.14					T.			.58		.28	.41	.04												
Ardmore	Cheyenne																																
Armour	Missouri						.50											.70	.70	.10					.25					1.30	.30	3.85
Bellefourche	Cheyenne		.88	.10	.05												1.30	.27		.07										.47			3.14
Brookings	Big Sioux					.25		.11	T.	.02			.73			1.07	.13	.73	.70	T.										.42	.52	4.68
Bryant	do				T.	.17	T.	.02	T.				.28		.05	.36	T.	1.00	.41								T.		T.		.26	2.55
Camp Crook	L. Missouri	T.	1.10	.03	.07	T.	.02	T.	T.				.18			.01	.05	.75		.01							.09		.01	.01			2.33
Canton	Big Sioux						.45	T.									.49		.43	.23											.40		2.00
Cascade Springs	Cheyenne				T.			.94									.08		.30										T.	.12			1.44
Castlewood	Big Sioux				T.	.61	.01	.01	.04	.02			.24	T.			.12	.06	1.91	.68	T.	T.	.01				T.		.03		.18	.35	4.27
Centerville	Missouri					.42	.12	T.	.04	.03			.79	T.			.41	T.	.97	.06	.01				.01		T.		T.	.16	T.	T.	3.02
Chamberlain	do			.15	.10		1.20		.38								.52		.62	.18											1.10	.05	4.30
Clark	James					.08		.02					.18			.04	.38	.25	.87	.72							.02		T.	T.	.09	.02	2.67
Cottonwood	Missouri		.76	.63	.20		.14	.04	.07				.31				.51	.04	.22	.46	.04				.02					T.			3.44
Custer	Cheyenne		.17		.32											.15			.45														1.09
Daviston	Owl	.17		.07	T.		.47	T.	.02				.02		.01	.35	.10	T.	.20	.04							.02			.64			2.11
Deadwood	Cheyenne		1.20	.10	.05		.10	.10							.65	.45		.60	.25		.25									.20			3.95
Deerfield	do		.24	.15	.08			.27						T.	T.	.31	.01	T.	.12		.03							T.		T.	.02		1.23
De Smet	James				.70		.10					.70			.25		50	1.10	.50									T.		.25	T.	.50	4.60
Dowling	Cheyenne		.25	.50	1.50		.35		.05								.75		1.25		.08							T.		.25			4.98
Dumont	do		.53	.04	.05			.46							.06			.30	1.00	.24													2.68
Eagle Butte	Grand	T.	T.	.02			.10		.16				.20	.16	T.		.28	.39		.03	.10				T.			.02	T.		.48		.05	3.29
Eales	Missouri			T.	T.	.03	T.	.01	T.																	T.	T.	T.		.65		.01	1.86
Edson	Cheyenne																																
Elk Mountain	do		.12		.03		.20	.08											1.20	.13											.13		1.89
Ellingson	Grand		.01	.01	T.		.04	T.					.13	.05		.02	.05	.08		.24		T.								.25			0.88
Englewood	Cheyenne		.80	.30				.30									.60		.30	.10	.75	.40					.30			.10		.10	4.05
Eureka	Missouri								.19	.01			1.01				.17	.51	.01	.17	.10	.01		T.						.15	.43	.51	3.27
Fairfax	do		.08	.17	T.		.11	.06	.12									.42		1.94	.05	.05									.80	.25	4.05
Faulkton	James					T.			.20				.42				.40	1.25			.34						.03	T.		.01	T.		2.65
Flandreau	Big Sioux						.10						T.					.40		2.30	.35							T.			.70	.28	4.13
Forestburg	James																																
Fort Meade	Cheyenne		.30	.50	.35	.10	.35	.35						1.90		.10	.10		3.20	1.50	.10									.20	.10	T.	9.15
Frederick	James				T.	.03	T.			.13			.30				.70		.21					.05						.18	1.88	.07	3.55
Greenmont	Cheyenne	.10	.60	.60	.10													.80	.40									.20					2.80
Greenwood	Missouri			.05			.24						.19				1.03	1.02	.30		.03						T.				T.	1.22	4.08
Hardingrove	Cheyenne		.43	.18	.60		.39	.01	.16								.28		.84		.08									.22			3.19
Harveys Ranch	do		.39		.13		T.	.32		.32					1.96				.30														3.42
Hermosa	do	.83	.43	.42	T.		.39	T.								.56		.60	.05														3.28
Highmore	Missouri					.19	T.		.02					.02			.58	.12	.69	.72												1.05	T.	3.39
Hopewell	Cheyenne		T.	.18		.22	.23		.05								.15		.42	.18	.04							T.		1.12			2.59
Howard	Missouri				.04	.23	.05	T.	T.	T.			.20				.47		1.90	.65	.01										1.15	.36	5.06
Howell	James				.03	.03	.33	.01	.06	T.		.01	.05	.01		.67	.53	.60	.36	.45					T.					.01	.25	.01	3.41
Huron	do				.29	T.	.12		T.			.56		T.		T.	.53	.15	.32	.04							T.	.03		.28	.04	.05	2.41
Ipswich	do								.10			1.00			.44		.75			.26											.75		3.30
Kadoka	White		.55	.65	.02	.13	.15	T.						.07			.29		1.12	.79	.04												3.81
Kennebec	Missouri		T.				.68		.12				.35				.50			.35											.90		2.90
Kidder	James																																
Kimball	Missouri		T.	.10		.15	.37		.74					T.			.48		.15	.97							.59				1.15	.15	4.85
Lacreek	White																																
La Delle	James				.10			T.	T.				.45				.35	1.10	.53	.55							T.				.10		3.18
Lead	Cheyenne		1.08	.27	.02		.04	.13						.03	.03	.45		.10	.69		.10									.10	.03		3.07
Lemmon	Grand						.08		.15				.25				.86			.89											.72			2.95
Manderson	White				.75			.21								*	1.06		.31		.14									.13	.02		2.62
Marion	Missouri					.20	T.		T.	T.			.35				1.15		.55	.42	T.					T.		T.			.70	1.02	4.39
Marston	do				.16		.14	.12		.06			.88				.52		.16	.85										.63	.10		3.62
Mellette	James								T.					.59		.35	.43	.04	.18	.40									.49		.09		2.57
Menno	do					.22	.20					.20				.90			.92						T.				T.	.43	1.60	4.47
Milbank ‖	Minnesota					.39	.21	.12	.02	.29	.04		.37	.02			.02	.09	.55	.38			.02						.05		.52	T.	3.09
Mitchell ‖	James				.10		.75		.02				.04				.90	1.48		.40										1.40	.40		5.49
Mobridge	Missouri				T.				T.			1.16	T.			.28	.35		.30	.10					T.	T.				1.90		.26	4.35
Murdo	White			.95			.35										.30		1.00												.55		3.15
Oelrichs	Cheyenne	.20		.10			.55	.10								.12			.77	T.													1.84
Onaka	James				T.				.11			1.20	T.		.45	.20	.79	.39	T.							T.				.51			3.65
Orman	Cheyenne		.93	.17	.05	.09	.03	.02										.78	.24	.02										.40			2.73
Ottumwa	Missouri		.50	.22	.11		.67	T.	.33					.19		.20		1.57	.52	.19													4.50
Parkston	James					.43	.33				T.	T.		T.			.78	.50	.43		.05						.14			1.10	.26		4.02
Pierre	Missouri		.13	.06	.18		.12		.02			.22		.05			.31	.16	.85											1.75			3.85
Plankinton	James			T.	T.	.08	.57		T.	T.			T.	T.			.72	.58		.85	.01										1.52	.51	4.84
Pollock ‖	Missouri					.10							.64			.24		.10	.65											.05	.53		2.31
Rapid City	Cheyenne	.13	.70	.23	.51		.02	.10				T.		T.	.01	.04	.38	.06	.61	T.				T.		T.			T.	.07	T.		2.86
Redfield ‖	James									.09			.14			.51	1.11		.20	.80											.19		3.04
Rochford	Cheyenne		.22	.09	.12			.29						.11	.75	.02			.12	T.									T.	T.	T.		1.72
Rosebud	White		T.	.80	.03		.12	T.								T.	.16			.45	.38									T.	.12	T.	2.06
Roslyn	Big Sioux					.21		.10	T.	T.			.72			.05	.35	.05		.48			.02	.02				T.			.47		2.47
Selby	Missouri								.13			.69			.36	.59		.27	.30								.34			.71	.19		3.58
Sioux Falls ‖	Big Sioux				.15	.07	.17						.28		T.			.37	.72	.31											1.08	1.15	4.30
Sisseton ‖	Minnesota					.14	.04	.02		.02			.67	.10				.25		.31		.12	.01								.65		2.33
Sorum	Owl		.26	T.	.07		.03	T.					.01	.14		.33	.12	.30		.30	.02							.02		.22			1.82
Spearfish	Cheyenne	T.	.70	.55	.53		.20	.02										1.85	.18		.15									.22	T.		4.40
Stephan	Missouri			T.		.69	.10		T.								1.05		.63	.56								T.		T.	.75		3.78
Tama	Cheyenne																																
Timber Lake	Grand							T.		.14			.74			1.78	.76		.26												.36		4.04

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
South Dakota—Con.																																	
Tyndall	Missouri	.05		.14			.55			.06			.14			.05	.96		.49	T.									T.		.12	.08	2.64
Vale	Cheyenne		.90	.36	.15		T.	T.						T.			.20	.96	1.61		.07								.19	.02		4.46
Vermilion	Missouri				.15			.45		.55			.04				.28	.55	.90									.38		.03	.14	3.47
Waters Ranch	Cheyenne		.76	.16	.22		.25	.07							.02		.03	1.44	.23		.22							.11	.29			3.80
Watertown	Big Sioux					.13	.04	.10		.08			.23	T.			T.	.48	.63	.41				.01				.03		.13	.02	2.29
Wentworth	do				.24		.05						.34				.80	.04	2.39	.47										.90	.33	5.56
Wessington Springs	James																																
White Lake	Missouri						.61		.12					T.			.10			.20										2.20	.35	3.58
Winner	White	.03	.44	.32		.70		.77				.21				.90		.19	.35	.07									.16	.10		4.24
Yankton	Missouri		T.	T.			.71		.09	.07		.01	T.				.74		.62		T.						T.	.01			.11	T.	2.36
Minnesota.																																	
Pipestone	Big Sioux			T.		.48	.23	.15	.03				.26	T.			.68	1.05	.56											.85	.18	4.47
Colorado.																																	
Albion Lake	South Platte																																
Arriba	Republican	.12	.01	.01	.71		.10		.04		T.			.10	.77	.24	.21	.02			.49										.59	3.41
Auldhurst	South Platte		.03	.04		.04	.02				.10		T.	T.	.04	.30					.10	.02					T.	T.	.04		.98		1.71
Bennett (near)	do			.38			.21	.15							.31	1.00			.18		.08									.27		2.58
Boulder	do	.09						.07	.03						.25	.03	.11	.02	.36										.01	.25	.55	1.77
Burlington	Republican	.02	.14	.14		.59	1.01	.75						.20	.75	.10	.05				.04											.04	3.83
Cassells	South Platte							T.							.60														.06	.36		1.02
Castle Rock	do	1.72	T.	.18	.65			T.	T.				.23	.42	.50	T.	T.											.20	T.		.28	.20	4.38
Cheesman	do	.10	T.	.30		T.		.01	T.				.07		.35	.25		.01			T.								T.	T.	.35	T.	1.44
Cheyenne Wells	Smoky Hill																																
Cope	Republican				.55	.35		.54						.46		1.30		.34			2.00	.40									.50		6.44
Corona	South Platte	.32	.14						.14							.22	.22													.32	.28		1.64
Denver	do	T.		T.			.01	.03			.01		T.	T.	.42	T.	.01	.16		T.								T.	.05	T.	.38		1.07
Edgewater	do	.05		.02				.05							.72	.07		.37										.04	.02	.43	.31	2.08
Estes Pk FishHatch	do	.15			T.		T.	T.						.25		.23		T.										T.		.17		0.80
Fort Collins	do																																
Fort Lupton	do			T.	T.	.01	.02	.02			.01		T.		T.	.01	.03	.13	.06			T.				T.			T.	.17	.04	0.50
Fort Morgan	do	.15	.28				.45	.10	T.			.12			.18	.20	.06														.27	1.81
Frances	do	.28				T.	T.	.01	.08					T.	.08	.15	.07	.09											.52	T.	.19	.01	1.48
Frys Ranch	do	.05						.03	.10							.15															.20	.04	0.57
Georgetown	do	.12		T.			.03	.38					T.	.51	.34	.04	.01	.18										T.	.04	.02	.03		1.70
Greeley	do		T.					.07	.07		.01		.06			.09		.13											.03	.01	.04		0.51
Grover (near)	do																																
Hartsel	do												T.		.99	.01					.15							T.		.01	.02		1.18
Hawthorne	do	.10		.03		T.		.10							.62	.14	.03	.20	T.											.07	.34	.12	1.75
Holyoke (near)	Republican	2.06				.65	.07	.21								.15	.45				.10											.86	4.55
Idaho Springs	South Platte	.33		T.			T.	T.	.03				T.	.02	.24	.08		.36								T.			T.	.09	.11	1.26
Julesburg	do																																
Keota	do																																
Kersey	do															.50		.15				.30							.35				1.30
Laporte	do			.47	.04											.42					.28									1.00	.55	2.76
Leroy (near)	Republican	T.	.30	.20	.02		.47	.19						.07		.03	.12				.08									.05		.07	1.60
Longmont	South Platte	.02					.06	.04							.11	.07		.23										T.	.16	.29			0.98
Longs Peak (near)	do	.11					.51	.30	.30					.01	1.20	.07		.08												.08			2.66
Lulu Pass	do																																
Merino	do	1.40			.32	.53		.19						.39				.38			1.42												4.63
Moraine	do	.25	.05													.13														.10		0.53
Platte Canon	do						.04								.24	.45		T.													1.40	2.13
Saint Cloud	do	.04	.09			.03	T.	.11						T.		.17	T.	.03				T.							.04	.26		0.77
Sedgwick	do		1.46	.50			.09	1.35								.32	.58		.08								T.			.06	.18	4.62
Sill Mine	do																																
Spicer (near)	North Platte														T.	.20	.12	.08										T.			.40	.50	1.30
Sterling	South Platte	.28	.45	T.	.40	.35	T.	.19					.22			.27															.13		2.65
Waterdale	do							.75					.15			.11					.36											.45	1.46
Wray	Republican	.57		.05		1.16	T.	.65						.35		1.42					.55	T.										.41	5.16
Yuma	do		.99	.10				.72							.28	.40	.38	T.			1.13										.51	T.	4.51
Nebraska.																																	
Ainsworth	Niobrara	T.	.17	.32	.11	T.	.21	T.	.09			.75				.17	.61	.65	.60												.45	.90	5.03
Albion	Loup					.29			.06				.23			.09	1.13																1.80
Alliance	North Platte		1.05			.20			.25							.20	1.20		.45											T.	T.		3.35
Alma	Republican		.50				1.39	.08	.11							.14	.59				.20		.06										3.07
Arcadia	Loup			.12			.05	.20								.45		.11									.13						1.06
Arden	do		.01	T.	.30		.01		.10			.79				.80	T.	.25								T.		.25		T.			2.51
Ashland	Platte		.01	T.		.60		.05	.05				.53	.01		.13	1.82												.08			.15	3.43
Ashton	Loup		T.	T.	.08	.27		.32	.02							.27	.08																1.04
Atkinson	Elkhorn							.05					.30				.45		1.30									.10					2.20
Auburn	Missouri			.04			.14		.50	.50				.01	.17	.12	.06	.01			T.	.36											1.91
Aurora	Blue																																
Beatrice	do		.07			.24		.10	.08					.32		.42	.40				.53											.30	2.46
Beaver City	Republican																																
Bellevue	Missouri		T.	T.		.02		.50	.08				2.09	.03		T.	1.65	T.									.02		T.			T.	4.39
Benkelman	Republican	1.60	.05			.80	.05	.30									.50				1.60												4.90
Bertrand	do																																
Blair	Missouri	.01	T.	.01		.08		.01	.19	.13			1.81	.70		.05	.66	.07	T.								.04		.65			.15	4.56
Bloomfield	do			.10			.27		.07	.04		.02	T.				2.69		.60									.62			.11		4.52
Bradshaw	Blue					.56	T.	T.	T.	T.			T.				1.57			T.	.02								T.				2.15
Bridgeport	North Platte	1.21		.21	.05		.17	.13								.08	.72			.28							.18				.25	.10	3.38
Broken Bow	Loup															1.23		.07															1.30
Bruning	Blue		.07		T.	.58	.10	.01	.63					T.	.36	.04	3.14				1.22											.22	6.37
Burge	Niobrara																																
Butte	do		.05	.09			.22	.11	.22									.44		.85	.11	T.									.15	.56	2.80
Cairo	Platte				.03	.03			.13					.04		.04	.57																0.84
Callaway	Loup	.12									T.						1.27	.19					T.										1.58
Cambridge	Republican	T.	1.00	T.			.10	.56		T.				.15	.10	.45	.20				.32								.02				2.90
Columbus	Loup																																
Crete	Blue		.03			.22			.09				.22	.07		.41	.80				.18												2.02
Culbertson	Republican	.09	.49	.03		.10	.03		.50						.10	.35	.30					.40							.10				2.49
Curly	North Platte	.74		.10		T.	.54	.44								.62	1.08		.48	T.						T.			T.				4.00
Curtis	Republican		1.26	T.	T.	T.	T.	.43	.36	.03				T.	T.	1.07	.70				.17		T.						T.				4.02
David City	Blue		.02	T.		.63		.33	.36				.13			.32	1.31		T.								T.		.13		.05		3.28
Du Bois	Missouri		.31			.21	.09	.02	.10	.03				T.	.47	.18	.05				.37	.21											2.04
Dumas	Loup		.03	T.	T.	T.		.02	.04	T.			.09			.04	.57		.45	T.									.33	.01		T.	1.58

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Nebraska—Contd.																																	
Elm Creek ‖	Platte	.32						.10								.45						.22											1.09
Elsie ‖	Republican	.18	1.40	.04	.02	.07		.09	.44	.05						.15	.40					.02								.02	.02	.03	2.93
Ericson (near)	Loup		T.			.21	T.						1.36			.20	.26		.20						.44							2.96
Ewing ‖	Elkhorn		.09	T.	T.	T.	T.	T.	.05			T.	T.			T.	.63		.60	T.									.10		.03		1.50
Exeter	Blue					.53							.20			.13	3.25															.10	4.21
Fairbury	....do		.41		.05	T.	T.	.08	T.					.61	.13	1.50	T.				.59											.12	3.49
Fairmont ‖	Blue					.10	.65		.26	T.				.03		.07	4.35					T.										5.46
Falls City	Missouri		.15			.38	T.		.10	.04					.43	.07					.30	.30										1.77
Fort Robinson ‖	White		.17		.52	.15		.50	.35								.65													.25		2.59
Franklin	Republican		.22			.82		.12								.82					.19	.10										2.27
Fremont	Platte			T.		.42		.02	.06	.20			1.95	.10		.03	1.01	.04											.35				4.18
Fullerton	Loup					1.34				T.						.38	1.02																2.74
Geneva	Blue		T.			1.29	.03	T.	.31						.39	.08	2.85				.11											.28	5.34
Genoa	Loup		.01			.62		.32		.03		.40	.06	.40		.11	1.19												.03		T.		3.17
Gordon	Niobrara																																
Gosper	Republican		.87				.03	.02						.07	.46	.23	.33				.18		.08						.09				2.36
Gothenburg	Platte		.60	T.	.10		.35	.20	T.							.22	.60				T.		.22						T.				2.29
Grand Island ‖	....do		T.			.04			.26	.07				.48			1.10									T.		T.					1.95
Grant	Republican		2.00	.04			.13	.11								.52					.02										.34		3.16
Greeley	Loup		.02	.01							.80				.02	.58	.60	.03										.24					2.30
Guide Rock	Republican	.20					1.20		.16						.27	2.42					.55											.28	5.08
Halsey	Loup		.02		.01	.30		.02								.15	.58		2.22	.01									.07		T.	.39	3.77
Hartington ‖	Missouri			T.	.14			.32					.06				.28	2.82	.44							T.			.16		T.		4.22
Harvard	Blue				T.	.24		T.	.17				T.	T.	.70	.16	1.00												T.				2.27
Hastings ‖	....do		T.					T.	.06					.02	T.	T.	1.60					.02							T.				1.70
Hayes Center	Republican		1.35	.10		.05	.55	.25	.05						.86	1.74	.28				.23							.10					5.56
Hay Springs	White	.07	T.	.40	T.		.15	.30								2.00		T.	T.							.07				.16			3.15
Hebron	Blue		.16			.29	.95	T.	.12	T.				.14	.50	.10	2.32	.07			.46											.11	5.22
Hemingford ‖	Niobrara		.42	.10	.05			.09	.35								1.36			.24	.34										.05		3.00
Hendley ‖	Republican	1.35				.06		.25					.05		.43	.42					1.20												3.76
Hershey ‖	South Platte	1.00					.10	.06							.05	.60															.01		1.82
Hillside	North Platte	1.10	.87	.03		.16	.05	.03	.04					T.		.15	1.23	.14	.04	.03								.31			.05	.34	4.57
Holdrege ‖	Republican		.36				.08		.05					.30		.23	.36					.11	.58						.02				2.09
Hooper	Elkhorn	.12	.10		.15					.10			.84	.44			1.40												.75		.35		4.25
Hull (near) ‖	North Platte	1.66		.06				.19								2.16			.25	.03								.10	T.				4.45
Imperial	Republican		.98	.10	.29		.11	2.10					T.		.30	.35					.05	T.					T.						4.28
Kearney	Platte					T.		T.	.31							.24	.31						.49							T.			1.35
Kimball	South Platte	.73		.18	T.	.04	T.	.31								1.17		.52	.25											.36	.17		3.73
Kirkwood	Niobrara		.05	T.			.30					.14				T.	.49	.88		.26	.23					T.				.10	.28		2.73
Kowanda ‖	North Platte	1.28	.10	.08				.08								.74		.40	.13											.04	.05	.10	3.00
Lamar	Republican	2.17	T.	.06	T.	.75	.37	.44					T.			.25	.84				.12	.01										.75		5.76
Lexington	Platte		.44							.04						.16					.02		.52										1.18
Lincoln	....do		.04	T.		.99		.06	.05	.01			.01	T.		.74	1.71				.24					T.		T.			.31		4.16
Lodgepole	South Platte	.02	.53	.12				.40								.07	.59	.90	.09											T.	.06	.06	2.83
Loup City	Loup		T.	.13		.27		.14					.04			.28																	0.86
Loyal	....do		.20	.22								.15			1.05		.12		.22									.10					2.06
McCook	Republican	.12	.41				.04	.25	.35							.53					.26											.15	2.11
McCool Junction ‖	Blue			T.	.06	.32				T.			.17	T.	T.	2.90				T.											.16	3.61
Madison	Elkhorn		.11			.62		1.10				.33				T.	.73	.10									T.						2.90
Marquette	Blue		T.			1.39		.04	.45				.54			.49	.81				T.								.03			.08	3.83
Mary	Loup		T.	.16		.05	T.	.19	.03							.40	.72	.49	.67	.08									.06		T.	.58	3.43
Mason City ‖	....do	.06		.04								.12				1.50		.15															1.87
Minatare	North Platte	.94				.60			.20							.96		.06	.10	.40	.08												3.34
Minden	Blue		.19					.02						.49		.22	.68				.08	.22							.02				1.92
Mitchell	North Platte	.94	.05	.01		.27		.32								.69	.94		.31											T.	.05	.01	3.59
Nebraska City	Missouri		T.			.72		.25	T.					.70		T.	.27			T.													1.94
Nelson	Blue					2.50	.06	.60						.70		2.60					.86											.12	7.44
Norfolk	Elkhorn	.10	.05	.03		.66		1.90					.10			T.	.60	.56	.02		T.								.02				4.04
North Loup	Loup						.27									.30	.45												.63			T.	1.65
North Platte	Platte	.01	.66					.14								.45	.01																1.27
Oakdale ‖	Elkhorn		.04			.32	T.	.03	T.			.03	T.			.05	1.51		.15							T.			.19		T.	T.	2.32
Omaha	Missouri		T.	T.	T.	.54		.40	.20	T.		.24	1.84			.04	1.17	.11											.02		.22		4.78
Ord	Loup	.01		.15				.05	.53							.16	.42		.16										.49				1.97
Orleans ‖	Republican		.48				2.00	.15								.65					.30											3.58
Osceola	Blue					1.70		3.25	.20				.36			.80	1.02																7.33
Palisade	Republican		.80			.25	.28	.44						.11	.25		.55				.23												2.91
Palmyra	Missouri		.05			.83			T.				.25	.06		.30	2.25	T.		.05	.16											.17	4.12
Pawnee City	....do		.13			.32	T.	.20	.15					.05	.10	1.35	.05				.90												3.25
Paxton	South Platte		1.25		T.	.03	.07	.11	.03				T.		.10	.27	.01	.24											.03		T.	.47	2.61
Plymouth ‖	Blue								.11					.43	.03	1.08				.03	1.10												2.78
Purdum	Loup			.18		.44	.23	.57								.16	.54	.28	.28	T.									.14		.02	1.22	4.06
Ravenna	....do		.04		T.	.05	T.	.10	T.						.02	.11	.14	.03												.09				0.58
Red Cloud	Republican		.16				.90	.01	.34					.13	.32	.16	1.22				.53		.05									.19		4.01
St. Libory	Platte					1.30			.25								.75																2.30
St. Paul	Loup			.06		1.03	.49	.42	.30							.37	.43																3.10
Santee	Missouri		T.	.16	T.		.36	.02	.04	T.			.51				.70		1.46		T.								T.		.08	T.	3.33
Sargent ‖	Loup																																
Schuyler	Platte																																
Scottsbluff	North Platte	.95	.12	.01	.03	T.	T.	.62								.34	.70	T.	.12	.57										.23	.02	.02	3.73
Seward	Blue					2.85		.15	.15				.18	T.		.65	1.95															.20	6.13
Sidney	South Platte	.30	1.56	.66	.08			.30						.05		.10	.68	.23													.15	.07	4.18
Springfield ‖	Platte	.07		.03	T.	.78		T.	T.	T.			.01	T.		T.	2.00													T.			2.89
Springview	Niobrara	T.	.15	.05			.17	.15	T.			T.				T.	.35	2.00		.36	.11										.45	.42	4.21
Stanton	Elkhorn	.12	.06				.67										.50	.30															1.65
Stratton ‖	Republican	.13	1.72	.11				.05	.45				.28		.33	.08	.85					1.50							.36					5.86
Superior ‖	....do		.20	3.75				.25	.45					.20		.25																	5.10
Syracuse	Missouri		.07			.67			.18				.04	.30		.25	.26				.46											.27	2.50
Table Rock	....do		.12			.30		.30	.20					.03	.49	.33					1.19	.05											3.01
Tecumseh	Missouri																																
Tekamah ‖	....do	.16				.10		.10			.06		1.55	.12			.50	.91	.12										.18	.24	.04		4.08
University Farm	Platte		.04			1.30		.04	.07					.06	.26	1.85				.21												.32	4.15
Valentine	Niobrara	T.	.07	.19	.05	.35	.08	.01				T.		T.		.06	.74	.16	.24		.28										.15	.14	.04	2.56
Wahoo	Platte					.65		.08	.47			.08				1.25												.10				.21	2.84
Wakefield	Elkhorn	.08		.03		.45	T.	.32		.29			2.56				.56	3.38															7.88
Walthill ‖	Missouri																																
Watertown	Platte		.24			.06		.17								.50												.04		.04			1.05
Wauneta	Republican	.55			.25	.20	.05	.88						.15			.25				.32	.13											2.78
Weeping Water	Missouri	.03	.04	T.		.60		.04	T.	T.				.21		.09	2.18	.05		.06	.01												3.31
Westpoint	Elkhorn																																
Wisner	....do	.08		.03				.22		.03			13				.70												.38		T.		1.57
York	Blue		T.		T.	.55			.56	T.			.13	T.		.61	1.00				T.								.08			T.	2.93

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa.																																	
Afton	Grand	.19				.48		.21	.60				.48	.70			.40			.14	.06						T.	.42					3.68
Allerton	Chariton	.18				.24	T.	.10	.18		T.		.55	.75		.04	.45				T.						.18		.53				3.20
Alton	Floyd				.01	.39	.52			T.			.54	.02			.08	.06	.51	.15									.06		.27		2.61
Atlantic	Nishnabotna	.14	T.			.05			.02	.61	.01		.28	.14		.01	1.76	.06		.04							.10		.26			T.	2.88
Audubon	do	.12				.07		.07	.02				.51	.38		.02	1.40	.25							.10		.04		.06				3.04
Bedford	Missouri		.11	T.		.55		.05	.88				.58	1.05		.06	.04				.27					T.						3.59
Centerville	Chariton	.02				.15							.25	.55			.20				.48							.19				1.84
Chariton	do					.25		T.	.34				.40	.68		T.	.25			T.	T.								.10			.22	2.24
Clarinda ‖	Nodaway			.10		.38	.32		.14	.68			1.48	.54	.77		.12	T.		.06	.85	.04					.02						5.50
Corning	do		T.			.60		T.	.35				.94	.25			.55	.04		.09	.09						T.		.64				3.55
Corydon	Chariton	.21				.25	.01	.01	.18	.02	T.		.51	1.06		T.	.08				T.								.05				2.38
Council Bluffs	Missouri		T.	.03		.48		.39	.10	T.			1.84	.22		.10	1.60	.15		T.									.03				4.94
Creston ‖	do	.03	T.			.15	.22						.50	.11	.51		.20	.11	T.	.15	.28								.06	1.27			4.26
Cumberland	Nodaway						.21		.13				.52	.23		1.90	.15			.15							.26		.06				3.61
Denison	Missouri	.10				.13		.14		T.			.80	1.19			.41	.79		.01					T.		.07				.18		3.82
Elliott	Nishnabotna	.04				.39		.06		T.			.84	.10		T.	1.02	.04		.26	T.						T.		.07				2.82
Greenfield	Nodaway	.13				.19		T.	.23				.42	.13		T.	2.35	.05		.25									.25				4.00
Harlan	Nishnabotna	.21			T.	T.	T.	T.	T.	.08			.38	.09		T.	1.35	.30	T.								T.		.22			.06	2.69
Inwood	Big Sioux				.04		.14	.09					.27				.29	T.	.40	.18					T.						.22		1.63
Lake Park	Little Sioux					.35		T.	.94	T.			.04	.03			.35	T.	.55	.20											.60	T.	3.06
Lamoni	Grand	.03	.05	.02		.38		.70	1.66	.01			1.15	.66		.29	.71				T.								.28				5.94
Larrabee	Little Sioux					.62		.44		.19			.46				.36	.28		.18											.13		2.66
Le Mars	Floyd	.01				.36		.84	T.	.01			.30				.17	.20	.33	.17									.14		.22	T.	2.75
Lenox	Missouri	T.		T.		.65		1.64	.66				1.37	.77			.21			.25	.10						.90		.20				5.75
Leon	Grand	T.				.30		.07	.25				.75	1.95		.05	.10	T.	T.										.30				3.87
Little Sioux	Little Sioux	.13		T.		.06		.06		.05			.45	.14			.47	.87											.20		.0		2.46
Logan	Missouri	.09		T.		.06		T.		T.			.81	.15			.59	.20											.39				2.29
Mount Ayr	Grand	.05	.07			.42		.28	.34				1.30	.95		.10	.12				.02					T.			.01				3.66
Murray	do	.25				.35		.08	.36	.01			.35	.23			.53			T.	.01						T.		.45				2.62
Northboro	Missouri		.08			.53		.02	.52				.06	1.30	T.	T.	T.			T.	2.45												4.96
Odebolt	Little Sioux					.25				.25			.55				.22	3.35		.20					.27				.11		.05		5.25
Onawa	Missouri	.26		T.		.05		1.10		.10	.05		1.40	.70			.50	3.20											.30		T.		7.66
Pacific Junction	do					.65		T.	T.				.70	.03		T.	1.24												T.				2.62
Rock Rapids	Big Sioux																																
Sheldon	Floyd				.07	.66	1.02	.25					.40				.06	.10	.65	.78					.03						.52	.02	4.56
Sibley ‖	Big Sioux				.03	.46	.05	.34	.12		.01		.18				T.	.33	.49	.57					.39				.01		.36	.11	3.45
Sioux Center	Floyd				T.	.85	1.12	.12		T.			.52				.12		.56	.12											.20		3.61
Sioux City	Missouri	.02				.37	1.02	.32	T.	.17	T.	.60	.03				2.40	1.95	.02	.06	T.								.04		.03		7.03
Spencer	Little Sioux						.40	.71				.60					.10	.50	.30	.50											.29		3.40
Thurman	Missouri		.06	T.		.96		T.	.03	T.			T.	.21		T.	.83			.01	.06							T.				2.16
Washta	Little Sioux					.30		.75		.30		.85					.25	2.45	T.	.25	.05									.15	T.	5.35
Kansas.																																	
Abilene ‖	Smoky Hill		T.	.28			1.90	.10	.30						1.64	1.70	.06					2.30								.46			8.80
Agricultural College	Kansas		.15			.21	.62		.27	.20					.37	.30					1.20							T.					3.38
Alton	Solomon		.46			T.		.15	1.03						4.87	1.11	1.26				.56										T.		9.44
Atchison	Missouri		.17	.01		.16	.15		.72			.02			.08	.52					1.46	.06						T.					3.35
Beloit ‖	Solomon		.42				1.60		.30	.04				T.	1.40	.61	.95	.55			.85	.10										.06	6.88
Blakeman	Republican		1.26	.05			.35	.27	.22					.43	.52	.37					.60	.03											4.10
Blue Rapids ‖	Blue			.70			.12		.33						.14	.29	.11					.79											2.48
Centralia	do		.35			.17	T.	.56	.18			T.	T.	.06	.72	.62					.30												2.96
Chapman	Smoky Hill					T.	2.00			.25					.25	.52					1.50												4.52
Clay Center	Republican		.63				.93		.55						.65	.70					1.60	.12											5.18
Colby	do		.90	.05	.05		.30		.21			.01		.03	1.60	1.10					.23												4.48
Concordia	do		.57			1.00	1.03	.26	.02					T.	.58	.94	.41				.33		.01									.03	5.18
Densmore	Solomon		1.90	.07			.28	.12	.31						2.20	1.30	.20				.82												7.86
Dresden ‖	Republican	.17	1.09	T.			.58	T.	.57					T.	1.08	.35	.23					.87											4.85
Ellsworth	Smoky Hill		.55			T.	1.06		.67					T.	.12	.03	.29				.25	.03				T.			.92				3.92
Emmett	Kansas		.50		T.	.07	.12		.67	.01				T.		.68					.99	.04							.03				3.11
Enterprise	Smoky Hill		.33				1.86		.23						.22	.56					.92								.18				4.30
Eskridge	Osage		.10			.07	1.97		.70	T.		T.		T.	.17	1.75					.54	.11											5.41
Farnsworth	Smoky Hill	.01	1.73	T.		.11	.22	.01	.80					T.	.12	1.71					.16												4.87
Fort Scott ‖	Osage							T.	.07	.02					.40	.80					T.	.45											1.74
Frankfort	Blue		.51			.23	T.		.76						.06	.21	.66				.33												2.76
Garnett	Osage		.03			.05	.09		.48						.45	.36	.52				.57	.68											3.23
Goodland	Republican																																
Gove	Smoky Hill																																
Hanover ‖	Blue			.22	T.	.27	.10	T.	.42						.05	.25	.15		T.			.60											2.06
Harrison	Republican		.14			T.	3.03	.82	.22						.59	.17	2.06				.22		.07									.11	7.43
Hays ‖	Smoky Hill	T.	.46	.11		.15	.80		.86						.03	.33	.17	.01			.13	.47											3.52
Hill City	Solomon		.88				.25	.07	.38						3.11	.26	.91				.61												6.47
Horton ‖	Kansas			.34			.25	T.	1.20		.09	.05	.10		.19	.17	.35					.80	.05							.07			3.66
Hoxie	Solomon		.78				.25	.10	.51						1.87	.56	2.80				.40							T.					7.27
Lawrence	Kansas		.04			T.	T.		1.45				.53	.90							1.17							.01					4.17
Leavenworth	Missouri		.06			.07	.02	1.20		.08	.05			.08	.55	.02				.58	.85							.15			T.		3.71
Lebanon	Solomon		.38				1.13	.10	.25	T.					1.50	.60					.95	T.											4.91
Leoti	Smoky Hill	.22	1.38	.02		.40		1.29	.06					.02	.63	1.23	.03				.08												5.36
Lincoln	Saline	T.	.22				.77	.40		.05				T.	.13	.08	.39				.07	.08											2.19
McCracken	Smoky Hill		1.00				.28	.05	.48						.07	.42	.07				.24											.29	2.90
Minneapolis	Solomon		.45			T.	2.87	.88							.26	.13	.04			T.	1.00	.10						.15				.12	6.09
Moran	Osage		T.			T.	.20		.18	T.					.10	1.98						.40	T.										2.86
Natoma	Saline						.70	1.10					.06			1.60					1.40												4.86
Norton	Republican		1.33	.05			.25	.48	.30						1.28	1.19	.15				.57												5.60
Oberlin	do		1.10	.06		.28	.03	.14	.37					T.	.75	.21	.14				2.10												5.18
Oketo	Blue		.25			.32		1.98	.16	.13				T.	1.65	.26					.68	.03											5.46
Olathe	Kansas		.02			.02	.02	T.	1.89	.01				.91		.96					1.09	.58							.02				5.52
Ottawa	Osage								.22					.93		1.24					.55	.29							.10				3.33
Phillipsburg	Solomon		.85	.04		.75		.06	.15						.32	.20	.55				.52		T.									T.	3.44
Plainville	Saline		.70			.45	.37	.10	.48						2.00	.10	1.25				.40											T.	5.85
Pleasanton	Osage							.48	.19					.23	.14	.40					T.	1.05											2.49
Quenemo	do		T.			T.	.35		.44					.03	.32	.05				.47	.13								.14				1.93
Republic	Republican		.65		.01	T.	3.55	1.12	.28	.20				T.	.44	.30	1.35	.05			.75	T.										T.	8.70
Russell	Smoky Hill		.38			.06	.51		.78					T.	.36	1.34	.05				.58											T.	4.06
Russell Springs	do	.25	1.75	.02		T.		.30	1.03					.23	1.50	1.50	1.00				.15		T.					.03					7.76
St. Francis	Republican		.66	.03			.28	.73	.04						1.22	T.	.43				.90		.04						.36			T.	4.69
Salina	Smoky Hill		.33	T.		.03	.66		.71	T.				.70	.04	.62					.92	.08							.50	.22			4.81
Scott	do	.18	1.74			.12		.13	1.30						.05	2.34					.14											T.	6.00
Smith Center	Solomon		.45				1.16	.21	.13	.04					1.70	.24	1.28				1.18		.13									.11	6.63
Topeka	Kansas		.06			T.		.27	.48	.17	.16		T.		.02	.78					1.08	.01											3.03
Tribune	Smoky Hill	.40	.02	.03	.10	.20	.40	.10			.05		.05	.20	1.60						.10												3.25

TABLE 2.—*Daily precipitation for August, 1912. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Kansas*—Contd.**																																	
Valley Falls	Kansas		T.			.10	.12		.23			.05		.13		1.81					1.10	.20										3.74
Vinland	do		.02						.70	.08				.61		1.25					1.17							.04				3.87
Wakeeney	Smoky Hill		.62			.04	.20	.09	.48						.75	.24	.32				.05											.07	2.84
Wallace	do		2.50					.10	.73						1.07	1.05					.06							.08				6.19
Wamego	Kansas		.20			.10	.50		.60	.15		.35			T.	.20					1.40							.05				3.55
Missouri.																																	
Amoret	Osage		T.	.11		T.	T.	T.	.38					.31	.30	.57					.29	.90										0.86
Appleton City	do														.92	.98						1.52										3.42
Arthur	do					T.	T.	T.	.45						.90							1.75	T.						T.			3.10
Avalon	Grand		.05			.03	.47		.69	.05			.77	.55		.40					.40	.05						2.10				5.56
Bethany	do						.05		1.14				.49	.29	.24	.52											.15		1.66				4.54
Bolivar	Osage								.50	1.00												1.38	.05									2.93
Boonville ‖	Missouri			.16			.04	.30	.12	.11	.07		.10	.41	.20	.10	.06				.06	2.00					.65					4.62
Brunswick ‖	Grand			.07				1.14	.40	.35			.20	.45	.10	1.15	.05				.06	.35							.82			5.14
Clinton	Osage			.10					.63					.12	.80																	1.65
Columbia	Missouri		.15	.12		T.	.12	.13	.38	.15			.87	.89	.04	.40					.91	.33				T.	.08		.29	.05			4.91
Crocker	Gasconade			.29			.05	.26	.67			.19	.21		.75	.18						1.60											4.20
Eldon	Osage			.59			.15	.93	.72				.02	.58	1.45	.12						1.72	.12										6.40
Eldorado Springs	do						T.	.19		.25					.22	T.						2.15	T.										2.81
Fayette	Missouri		.05			T.	.59	.10	.09	.40			1.66	.24	.20	.80					1.19	.16							.10				5.52
Fulton	do			.07		.08						.67	.88		.38											.48			.16			2.72
Glasgow ‖	do			.02			T.	.44	.52	.02	.18		.58	.84	.64	.32	.20					.96							.12				4.84
Grant City	Grand		.13	T.		.62		.34	.26				.57	.40	T.	.62	T.			T.	.19	T.	T.			T.	T.		.35	T			3.48
Harrisonville ‖	Osage			.03			T.	.06	.90	T.					.74	1.46						1.24	.02					T	.01			4.46
Hazelhurst	Grand		T.			.08	.30	.49	.10				.73	1.32	T.	.13	T.				.27					.55		2.01				5.48
Hermann ‖	Missouri			.80			T.	.40	.18	.06	.18		.02	.86	.92	.02	1.00		T.			.28	T.	T.			.46		.12			5.30
Houston	Gasconade						T.	.11	.24	.15		.26	1.37		.05	.62		.80				1.26						T.					4.86
Jefferson City ‖	Missouri			.75				.42		.50	.65	.04		.33	.68						.18	.26					.10		.05			3.96
Kansas City	do		.01			.09		1.68	.65	.03				.05	.15	.06					.97							.06				3.75
Kidder ‖	Grand						.06	.05	1.30	.06	.08		.50	.15	1.50	.60	.36					.46							1.26				6.38
Lamonte	Missouri			.55		T.	T.		.70	.01			.18	T.	.27	.83					1.70	.60	.20				.05						5.09
Lebanon	Osage			T.			.08	.20	.12	.57			.73	.35				.40				1.44											3.89
Lexington ‖	Missouri			.05			.07	.15	1.14	.71				.26	.50	.18					.14	2.24							.27			5.71
Liberty	do		.05			T.	T.	T.	1.50	T.				.05	.75	.85					.70	.52	T.						.10			4.52
Lockwood	Osage																									*							
Marshall	Missouri		.04	.02		.16	.08		.32	.30			.57	T.	.19						1.69	.96					T.		.33			4.66
Maryville ‖	do			.09		.17	.32	.03	.33				.29	.16	.04		.03					.42											1.88
Mount Vernon	Osage							T.	.33	1.24		T.										2.52											4.09
Nevada	do								.90	.38			.30									.42											2.00
Oregon	Missouri		.05			.12	.06		.47	.08			.02		.20	.22					1.44								.01			.19	2.86
Pattonsburg ‖	Grand																																
Rolla	Gasconade			1.12			.05	.20	.57	1.67	.01	.02	.11	.11	1.30	.14	.02					1.65	.03				.05						7.05
St. Charles	Missouri			.52				.20			.43		.21		.38	.01					.32	.25				T.	1.10		.22				3.64
St. Joseph	do		.23	T.		.07	.07	.29	.25			T.	.18	T.	.07	1.80				.07	.72							.48				4.23
St. Louis (1)	Mississippi	T.	.05	.51			.06	.26	.02	.03			.47	.08	.05						.10	.25	T.			.27	.49		.01				2.65
St. Louis (2)	do	T.	T.	.55			T.	.12	.25	.02	T.		.43	T.	.20		T.	T.			.18	.25	T.			.21	.46		.01				2.68
Sublett	Chariton					1.06			.25	T.		1.25			.10		.35	1.00		T.								2.00		1.00			7.01
Tarkio	Missouri		.03			.37		.08	.46						.44						.50						T.						1.88
Trenton	Grand		.02			.15	.12	.26	.04				.52	.40	.95	.65				T.	.72					.16		2.65					6.64
Unionville ‖	Chariton	.22		T.			.26	.15	.25	.20	T.		.55	.20	.12	.08	1.60	T.			T.	T.					.10			.54			4.33
Warrensburg	Missouri		T.	.19		T.	T.		1.05	.24			.17	.24	1.36	1.15					1.80	.62	.03						.12				6.97
Warrenton ‖	do			.36				.45	.31	.28	.19			.39	.24	.04	.79					.28					.50		.26				4.09
Warsaw	Osage		.02	.16		.08	.05	.19	.84				.15	.24	.62	.09						.42	.11				T.							2.97
Wheatland	do			T.				.01	.01	.38												1.55											1.95

* Precipitation included in that of the next measurement.
‡ Separate dates for falls not recorded.

‖ Precipitation for the 24 hours ending on the morning when it was measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 6, Missouri Valley.*

Date.	Wyoming.																Montana.											
	Basin.		Cheyenne.		Fort Laramie.		Lander.		Newcastle.		Pathfinder.		Sheridan.		Yellowstone Park.		Billings.		Dillon.		Havre.		Helena.		Lewistown.		Malta.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	.....	.....	74	52	76	55	80	57	75	60	81	58	80	54	66	53	80	62	70	41	68	60	66	57	79	43	76	46
2	.....	.....	80	55	84	56	83	51	70	58	82	57	73	61	71	52	79	62	71	47	67	57	72	58	64	52	71	44
3	.....	.....	76	56	85	59	82	52	68	58	82	55	77	58	70	49	79	58	69	40	72	56	73	56	76	53	65	45
4	.....	.....	85	57	85	59	81	46	83	58	83	53	79	50	65	43	80	50	70	44	72	54	73	53	70	49	76	44
5	.....	.....	77	54	86	53	82	45	80	58	79	50	81	47	71	41	84	44	71	45	78	53	78	52	70	40	81	40
6	.....	.....	77	52	85	54	81	47	84	54	80	56	74	49	68	42	80	53	70	40	72	45	68	56	78	44	77	39
7	.....	.....	66	48	63	51	58	49	72	54	73	48	66	49	59	42	76	54	74	37	73	55	71	54	70	45	74	34
8	.....	.....	66	46	76	49	73	46	71	44	73	43	74	42	74	38	82	43	72	39	81	43	80	47	78	40	80	35
9	.....	.....	74	41	78	43	85	45	76	46	85	47	84	43	81	47	86	46	75	41	89	52	87	55	76	48	85	44
10	.....	.....	87	49	84	50	86	55	85	60	86	59	80	52	73	47	88	56	80	43	79	57	77	56	84	40	82	44
11	.....	.....	86	57	85	55	85	49	92	62	83	51	85	51	72	44	86	52	81	40	77	52	74	52	78	46	82	50
12	.....	.....	83	57	84	58	85	46	80	56	84	53	76	46	72	38	79	40	79	37	70	48	72	47	75	36	72	52
13	.....	.....	76	57	83	54	81	48	82	58	82	49	77	47	75	39	80	42	78	39	77	42	78	45	71	36	72	42
14	.....	.....	72	51	81	55	78	51	81	58	84	56	84	44	77	42	84	46	78	40	78	50	82	49	72	47	76	54
15	.....	.....	73	54	69	59	75	50	72	56	71	58	80	56	57	48	80	57	77	41	74	52	76	60	78	55	80	52
16	.....	.....	80	50	80	56	80	44	85	60	78	56	81	54	60	39	83	53	70	39	70	48	62	46	75	52	78	62
17	.....	.....	76	54	89	54	67	50	86	56	78	55	72	53	62	36	75	47	72	33	74	40	73	41	67	37	72	41
18	.....	.....	80	51	85	56	69	45	80	56	70	53	69	49	52	43	77	50	69	38	59	50	60	45	76	42	72	52
19	.....	.....	75	51	81	50	75	38	76	46	74	47	69	44	54	46	71	42	78	34	60	54	60	47	57	42	60	55
20	.....	.....	69	48	77	46	72	40	72	45	74	44	71	42	68	34	77	43	80	39	75	49	70	42	57	40	72	52
21	.....	.....	80	50	87	46	82	41	85	50	77	48	78	44	74	38	86	42	80	42	81	53	80	48	72	40	80	52
22	.....	.....	80	46	90	46	86	47	85	52	81	49	86	43	79	39	93	42	86	49	86	55	84	52	78	44	87	54
23	.....	.....	83	48	92	45	84	50	88	50	84	53	86	47	76	46	90	43	89	47	83	64	84	58	86	42	85	54
24	.....	.....	85	54	93	50	87	45	97	60	84	51	89	50	78	44	94	44	88	48	90	55	90	58	80	54	82	52
25	.....	.....	88	57	100	44	87	52	86	52	81	51	87	53	78	47	91	48	90	48	70	52	83	58	84	47	72	49
26	.....	.....	89	58	85	56	92	48	85	65	90	52	85	46	83	42	87	48	89	44	84	50	87	51	82	50	79	49
27	.....	.....	80	58	90	59	83	63	86	52	81	63	87	54	67	49	90	62	87	42	76	54	76	57	87	59	79	59
28	.....	.....	83	53	93	59	81	55	90	60	80	56	81	48	71	43	85	46	88	42	79	46	78	49	81	40	80	49
29	.....	.....	85	60	94	50	78	57	85	58	73	62	68	46	62	41	72	48	80	40	61	44	60	45	89	42	74	53
30	.....	.....	63	52	70	55	75	48	85	60	74	49	76	45	59	32	72	36	78	36	66	44	72	38	63	30	78	38
31	.....	.....	76	53	85	50	80	39	85	58	76	55	82	41	62	43	84	40	76	35	69	47	63	44	72	44	72	43
Mns.	.....	.....	78.2	52.5	83.7	52.6	79.8	48.4	81.5	55.5	79.5	52.8	78.6	48.6	68.9	42.5	82.3	48.4	77.9	41.0	74.5	50.0	74.5	50.8	75.0	44.5	76.5	47.7

Date.	Montana.				North Dakota.										South Dakota.													
	Miles City.		Poplar.		Berthold Agency.		Bismarck.		Dickinson.		Jamestown.§§		Williston.		Aberdeen.§§		Huron.		Kadoka.		Kimball.		Lemmon.		Pierre.		Rapid City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	78	64	77	53	79	42	76	51	77	49	73	46	76	49	.....	.....	76	52	82	----	84	62	80	62	80	56	77	54
2	64	60	72	58	74	50	70	48	70	55	70	43	70	54	.....	.....	73	51	76	54	79	55	72	65	66	58	58	51
3	70	57	69	50	73	47	71	46	70	50	71	39	70	53	.....	.....	74	51	64	52	71	53	85	63	71	56	73	49
4	84	58	76	54	81	52	81	54	81	55	66	43	78	52	.....	.....	76	55	83	58	77	57	84	65	85	62	81	58
5	85	56	80	54	77	55	79	56	79	50	77	52	77	57	.....	.....	87	59	83	57	85	57	.....	.....	86	58	80	58
6	78	58	71	54	75	46	82	53	77	41	79	53	76	53	.....	.....	84	54	73	56	88	58	84	56	73	57	76	58
7	76	56	75	51	70	47	68	52	70	47	74	57	68	54	.....	.....	80	56	72	57	75	53	73	51	76	56	67	56
8	80	50	83	45	77	51	73	53	73	54	63	54	76	55	.....	.....	76	51	71	51	76	51	72	53	75	57	70	53
9	86	54	85	45	79	44	78	51	79	40	73	51	77	51	.....	.....	76	54	76	49	74	52	80	52	78	54	74	51
10	84	60	86	50	82	52	82	51	85	49	78	51	82	59	.....	.....	84	51	86	52	80	54	85	60	83	55	81	52
11	88	60	85	52	84	59	90	60	84	56	83	52	83	57	.....	.....	86	56	91	60	85	55	91	52	91	62	85	64
12	78	53	75	53	74	54	74	60	73	53	75	50	73	52	.....	.....	83	61	81	60	83	61	79	65	84	64	76	54
13	81	48	83	47	74	47	76	54	75	44	75	51	69	50	.....	.....	82	53	81	56	78	56	81	51	85	56	77	53
14	85	51	80	45	80	44	80	49	79	41	71	50	77	48	.....	.....	83	48	87	54	84	53	84	49	83	56	81	51
15	91	60	82	52	84	47	81	56	80	55	79	53	79	54	.....	.....	81	62	83	56	84	57	85	57	83	64	78	55
16	80	66	77	60	75	58	68	61	77	58	69	45	69	60	.....	.....	74	62	86	60	80	60	78	57	86	60	81	62
17	80	54	79	49	79	57	78	60	74	54	71	57	78	60	.....	.....	85	63	86	60	84	60	75	62	85	61	80	57
18	81	60	67	57	72	56	73	58	70	58	67	56	67	59	.....	.....	83	64	79	62	82	64	80	56	80	63	78	57
19	70	52	65	56	68	56	71	57	70	56	71	57	63	56	.....	.....	81	60	79	53	78	48	73	62	80	61	74	53
20	75	55	71	55	73	56	72	56	70	54	72	51	74	55	.....	.....	76	58	72	56	76	60	70	52	74	61	73	54
21	82	52	80	51	80	50	81	56	78	50	80	45	79	54	.....	.....	82	55	73	53	74	54	89	53	84	58	80	51
22	88	56	86	53	81	53	80	55	80	54	73	43	84	55	.....	.....	80	59	86	57	83	56	90	54	86	66	84	61
23	88	56	84	52	90	50	92	54	86	54	90	50	87	58	.....	.....	94	56	94	59	91	57	93	56	96	63	90	64
24	94	55	86	55	81	57	87	57	83	52	88	52	78	56	.....	.....	96	62	93	58	93	60	91	75	96	64	90	64
25	82	56	74	53	77	55	86	56	79	56	85	51	70	55	.....	.....	100	53	94	54	97	59	89	59	98	60	91	62
26	88	54	75	58	77	44	78	50	76	46	75	47	73	45	.....	.....	75	57	80	54	87	57	78	61	77	59	82	53
27	86	69	76	56	85	53	87	56	85	58	79	48	77	55	.....	.....	89	51	98	56	94	58	91	59	99	61	93	60
28	89	54	83	52	75	53	73	56	78	50	69	51	77	54	.....	.....	72	61	92	.....	83	61	84	53	82	61	84	57
29	74	59	71	54	80	55	75	56	83	50	68	49	77	56	.....	.....	82	55	92	60	82	52	83	55	81	58	87	58
30	76	49	73	43	72	43	73	52	71	44	69	56	69	46	.....	.....	69	58	72	58	78	62	88	52	68	60	69	56
31	82	50	78	44	80	47	78	54	77	49	67	46	77	50	.....	.....	72	55	90	54	77	57	85	50	90	59	83	55
Mns.	81.4	56.2	77.5	52.0	77.7	51.0	77.8	54.5	77.1	51.0	74.2	50.0	75.2	53.9	.....	.....	81.0	56.2	82.4	52.5[b]	82.0	56.7	82.4[a]	57.2[a]	82.6	59.5	79.1	56.2

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 6*—Continued.

Date.	South Dakota.						Colorado.				Nebraska.															
	Sioux Falls.§§		Watertown.§§		Yankton.		Denver.		Wray.		Alma.		Bridgeport.		Grand Island.§§		Hay Springs.		Hebron.		Lincoln.		North Platte.		Oakdale.		Omaha.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	75	50	73	50	77	57	74	58	82	58	87	49	82	56	82	61	82	52	88	56	81	62	81	58	79	59	80	64
2....	74	49	71	46	71	54	89	58	78	58	74	54	80	56	69	60	75	58	63	58	69	57	66	57	67	60	73	63
3....	74	47	69	43	71	58	80	60	68	58	75	54	67	57	88	57	65	57	77	53	76	55	66	56	73	58	74	61
4....	85	51	70	46	75	60	91	60	81	60	78	57	78	60	80	60	76	59	80	55	82	58	76	59	78	52	80	61
5....	75	55	80	53	82	62	85	58	87	65	90	58	85	57	92	58	83	58	83	57	79	56	86	60	82	58	75	58
6....	80	59	83	52	89	60	83	54	85	55	83	54	82	55	91	64	70	52	82	62	86	64	83	63	87	58	82	64
7....	75	52	80	54	79	60	75	52	76	55	83	60	66	50	83	63	78	50	86	62	82	65	78	54	81	59	80	64
8....	.....	53	73	50	76	58	70	52	74	49	78	56	70	48	79	59	70	46	78	62	80	63	73	52	77	60	77	64
9....	73	.....	72	51	73	55	80	47	80	47	77	50	78	43	77	53	75	42	76	54	76	57	78	50	74	53	74	58
10....	80	53	79	51	80	56	94	53	85	51	83	48	82	52	85	51	83	49	83	53	84	57	82	53	81	50	82	60
11....	86	55	87	52	85	57	92	59	91	59	88	61	91	56	93	67	88	65	88	66	90	61	94	61	88	53	88	62
12....	88	60	85	59	90	65	90	60	87	58	95	61	82	56	104	69	80	50	93	70	100	69	87	61	92	64	96	62
13....	79	54	82	49	83	57	82	58	86	59	86	66	87	58	80	66	79	58	84	68	80	65	84	60	84	55	80	69
14....	83	50	78	46	85	53	74	55	79	59	80	64	82	54	80	62	82	49	74	66	83	62	82	56	85	53	83	64
15....	86	54	76	49	81	60	74	55	78	65	76	62	73	62	74	62	78	52	75	67	77	65	70	60	76	51	79	66
16....	70	59	67	58	74	64	85	54	87	59	87	62	85	55	87	62	82	52	87	65	89	66	87	64	80	63	81	66
17....	90	60	85	50	88	69	83	58	86	58	91	67	85	57	93	69	80	55	89	70	94	75	88	60	87	64	93	74
18....	86	64	80	62	87	65	88	55	89	59	91	67	86	54	92	71	83	54	90	72	94	74	89	63	86	67	94	76
19....	81	59	79	59	82	63	85	53	85	58	92	63	82	53	86	66	80	52	87	72	90	72	83	60	81	60	89	73
20....	78	56	76	52	76	61	72	56	78	58	80	60	78	58	75	64	74	54	77	64	78	65	77	58	78	57	80	68
21....	78	55	79	50	79	58	84	55	85	53	83	52	83	58	85	55	78	46	81	59	82	60	84	52	79	54	82	64
22....	89	57	75	52	81	61	83	54	85	52	84	58	82	48	87	61	82	50	84	62	86	63	85	53	82	55	83	66
23....	89	57	90	51	94	57	89	57	94	55	91	52	89	47	96	59	90	46	88	62	95	61	94	53	92	54	93	64
24....	91	57	91	57	94	67	90	58	89	54	96	56	91	52	94	64	90	48	90	67	93	70	93	55	93	62	94	75
25....	88	58	96	54	96	64	94	60	96	52	96	54	98	46	104	70	95	46	95	61	102	63	98	54	97	62	98	68
26....	77	58	75	53	80	62	94	61	89	58	93	57	93	59	86	64	82	54	93	64	87	67	86	59	80	60	86	68
27....	85	49	82	48	89	55	87	62	95	59	98	60	87	54	100	66	92	54	94	65	98	64	98	58	91	55	89	64
28....	75	57	64	52	82	62	88	56	89	54	95	67	.....	.....	91	70	90	55	92	73	92	70	91	60	84	63	87	70
29....	83	58	77	56	82	56	93	61	94	56	98	72	91	60	96	61	90	60	93	65	97	62	93	58	87	55	88	62
30....	72	60	68	57	84	64	68	58	82	57	94	68	71	56	84	72	80	54	90	73	95	70	76	60	76	64	95	71
31....	91	58	73	52	82	61	83	57	84	56	92	58	82	55	96	66	85	54	94	65	97	64	86	58	85	63	97	68
Mn...	81.2[a]	55.5[a]	77.9	52.1	82.2	60.0	83.8	56.6	84.6	56.6	86.9	58.9	82.3[a]	54.4[a]	87.4	63.0	81.2	52.6	85.0	63.5	86.9	63.9	83.7	57.6	82.6	58.1	84.9	65.7

Date.	Valentine, Nebr.		Iowa.						Kansas.										Missouri.							
			Clarinda.§§		Sibley.§§		Sioux City.		Colby.		Concordia.		Salina.		Topeka.		Wakeeney.		Columbia.		Kansas City.		St. Louis.		Unionville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	79	60	83	59	74	52	76	58	83	60	89	55	82	56	91	62	85	62	86	64	86	66	81	64	84	60
2.....	65	54	75	55	74	48	73	53	78	60	70	58	78	56	72	62	79	62	80	60	72	63	78	64	80	56
3.....	66	53	77	54	70	47	72	58	72	56	77	59	76	54	77	59	76	57	75	58	74	58	71	55	78	46
4.....	78	55	84	52	74	50	75	60	82	58	81	58	80	62	79	56	83	58	76	51	76	59	72	55	82	43
5.....	84	57	78	54	70	55	74	59	89	60	86	61	90	64	80	60	90	63	76	53	75	59	75	59	76	46
6.....	83	54	78	57	84	56	86	60	84	57	85	62	93	64	79	64	85	59	85	60	75	65	82	62	84	52
7.....	70	54	85	60	78	58	80	62	80	59	87	64	90	67	89	64	87	61	83	64	84	62	81	66	83	56
8.....	72	51	74	62	73	56	76	61	74	54	80	63	89	64	77	64	77	58	76	66	76	64	78	68	72	60
9.....	74	47	77	57	71	56	74	54	80	50	78	58	82	54	79	60	78	53	78	60	77	61	78	62	80	58
10.....	83	48	83	57	78	56	80	56	86	50	86	56	86	54	86	59	88	56	81	59	84	61	80	62	81	60
11.....	92	64	90	56	83	52	83	60	102	67	89	68	92	68	90	69	96	67	88	61	87	69	88	68	90	56
12.....	81	55	90	62	86	62	92	65	98	60	96	72	100	69	98	76	96	65	81	67	88	70	79	71	92	60
13.....	81	54	88	64	80	55	83	62	91	64	84	73	92	75	91	73	92	69	92	68	88	70	92	70	83	66
14.....	84	57	83	60	82	50	85	56	85	60	82	68	80	63	86	70	79	63	85	68	81	68	82	69	86	62
15.....	78	56	77	63	80	52	79	62	78	62	78	66	80	68	82	68	84	63	82	69	82	69	80	69	80	64
16.....	87	60	89	65	69	59	74	65	85	60	90	66	87	71	90	69	88	64	82	69	86	70	85	68	76	62
17.....	89	61	96	67	87	61	88	62	89	60	94	75	93	73	94	72	90	67	91	73	92	74	91	74	91	60
18.....	86	61	96	69	82	64	90	67	90	62	94	73	96	73	96	72	90	67	92	74	93	74	92	75	92	66
19.....	83	58	95	70	81	61	83	65	87	63	93	75	100	75	96	76	91	65	95	74	94	76	93	78	93	70
20.....	75	57	82	65	79	56	79	60	80	63	81	65	93	68	85	64	83	65	82	70	85	68	83	75	85	68
21.....	80	53	81	62	77	55	78	59	82	54	83	61	82	61	83	65	85	55	83	66	82	68	83	72	83	64
22.....	84	53	83	59	75	55	80	62	84	50	85	66	.....	.....	85	66	85	59	85	63	84	68	87	66	82	61
23.....	94	55	92	57	86	51	92	57	93	68	93	65	91	62	93	66	93	59	88	61	89	68	85	65	88	55
24.....	94	54	96	63	89	56	92	71	92	60	97	69	100	71	97	69	98	62	91	69	93	72	90	70	91	60
25.....	100	54	100	64	93	57	97	62	99	57	101	66	103	69	99	76	102	59	94	75	95	77	89	74	95	66
26.....	80	59	89	64	73	57	79	63	98	56	96	66	103	69	100	74	104	63	90	67	93	76	89	64	92	68
27.....	99	54	89	61	80	52	85	56	100	60	100	67	102	70	100	72	100	60	84	69	95	76	81	66	84	56
28.....	87	61	95	68	78	54	84	62	100	60	97	77	105	71	101	74	100	72	97	70	98	74	95	70	96	62
29.....	91	56	98	62	78	59	82	57	100	57	94	68	90	71	96	72	100	67	92	70	94	74	93	73	90	64
30.....	66	55	98	61	79	60	82	65	88	68	98	73	95	70	98	71	99	69	91	70	94	75	90	75	91	66
31.....	86	55	99	70	81	60	89	63	88	58	97	72	97	75	99	77	97	64	95	75	95	77	92	78	94	70
Mn.....	82.3	55.6	87.1	61.3	78.8	55.5	82.0	60.7	87.3	59.4	88.4	66.0	90.7[a]	66.2[a]	89.3	67.8	89.7	62.4	85.7	65.9	86.0	68.5	84.4	68.0	85.6	60.1

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 7, LOWER MISSISSIPPI VALLEY.

ISAAC M. CLINE, District Editor.

GENERAL SUMMARY.

Moderate temperature conditions prevailed throughout the month, except that from the 24th to 31st maximum temperatures were considerably above the normal in Oklahoma and the Kansas area, the readings being 100°, or higher, at some stations every day. The precipitation was light generally, but it was well distributed, except in parts of eastern Oklahoma, northwestern Arkansas, and the western portion of the Missouri area where the rainfall was insufficient for agricultural needs. In Oklahoma, droughty conditions were prevailing in many localities at the close of the month. There was no snowfall within the district.

The following table summarizes the chief features of meteorological interest in the various portions of the district.

States and portions of States lying within District No. 7.	Mean temperature.	Departure from normal.	Mean precipitation.	Departure from normal.	Greatest precipitation in 24 hours.	Mean snowfall.	Number of days.				
							With 0.01 inch, or more.	Clear.	Partly cloudy.	Cloudy.	Prevailing direction of wind.
Colorado	64.8	−1.2	1.79	−0.26	2.75	0	8	17	10	4	sw.
New Mexico	70.8	−0.4	2.89	−0.07	4.05	0	9	13	14	4	sw.
Texas	78.7	−0.6	3.69	+1.63	5.91	0	7	16	8	7	s.
Kansas	78.6	+0.5	3.71	+0.61	5.50	0	7	18	10	3	s.
Oklahoma	80.2	−0.6	3.29	+0.54	5.10	0	6	19	8	4	s.
Missouri	76.4	+0.1	3.57	+0.03	2.52	0	7	18	8	5	s.
Tennessee	77.4	−0.7	4.10	+1.10	2.40	0	8	17	6	8	s.
Arkansas	78.7	−0.4	3.30	−0.17	3.12	0	7	15	10	6	sw.
Mississippi	79.6	−0.5	5.21	+1.26	3.50	0	9	16	8	7	sw.
Louisiana	81.3	−0.1	5.89	+1.13	6.47	0	11	13	9	9	s.

TEMPERATURE.

Mean temperatures were from 0.1° to 2.9° below the normal over the Colorado and New Mexico areas, and in scattered localities in Oklahoma, Arkansas, Louisiana, and the Kansas, Texas, and Mississippi areas; elsewhere, there was an excess ranging from 0.1° to 2.8°. Over many parts of the area, high temperatures occurred toward the close of the last decade. The highest temperature recorded, 110°, occurred at Jefferson, Okla., and at Cunningham and Lacrosse, Kans. A maximum reading of 105° was recorded at Bee Branch, Ark., and 104° at Bonham, Tex., and Liberty Hill, La. The lowest temperature recorded was 29°, at Elizabethtown, N. Mex., and a mimimum reading of 30° was recorded at Lake Moraine, Colo.

PRECIPITATION BY DRAINAGE AREAS.

Arkansas River and tributaries.—The precipitation was unevenly distributed over this drainage area. In Colorado the average from 33 stations was 1.80 inches, about 0.3 inch below the normal. Over those portions of the Arkansas Valley proper that lie in Kansas and Oklahoma, the average from 46 stations was 3.80 inches, about 1 inch in excess of the normal. In the Canadian Valley the average from 69 stations was 2.80 inches, about the normal amount. The amounts from 21 stations in the Cimarron Valley averaged 3.75 inches, about 0.4 inch above the normal. Over the Verdigris and Neosho Valleys the precipitation averaged 2.84 inches, about 1 inch below the normal. Below the Oklahoma-Arkansas line, the average from 15 stations in the Arkansas Valley was 3.12 inches, about 0.6 inch below the normal.

Red River and tributaries.—More than the normal precipitation occurred in nearly all portions of this drainage area. Over those portions of the Red River Valley that lie in New Mexico, Texas, and Oklahoma, the average from 44 stations was 4.18 inches, about 2 inches above the normal. Below the Texas-Arkansas line, the average from 21 stations was 5.30 inches, about 2.3 inches above the normal.

Mississippi River south of St. Louis and small tributaries.—More than the normal precipitation occurred over the greater portion of this drainage area, but the amounts were unevenly distributed. In the immediate Mississippi Valley the average from 38 stations was 4.35 inches, about 1 inch above the normal. The average from 23 stations in the Valley of the White River was 2.66 inches, about 1 inch below the normal. Over the Yazoo Valley the average from 21 stations was 4.98 inches, about 1.2 inches above the normal. The average for the Valley of the Big Black was 6.58 inches, about 2.5 inches above the normal. In the Ouachita Valley the average from 20 stations was 4.49 inches, about 1 inch above the normal.

Louisiana coastal plain.—The precipitation was unevenly distributed over this drainage area, and the average from 32 stations was 6.26 inches, about 0.8 inch above the normal.

RIVERS.

No high water occurred in the Arkansas River during the month, and at Little Rock the stages were too low for navigation except on a few days.

The White River was unusually low, and at Calico Rock was below the zero of the gage during the greater part of the last decade of the month.

Low stages prevailed in the Ouachita throughout the month.

No floods occurred in the Red River, and the stages were generally low.

Except for a few unimportant rises, the Mississippi River below St. Louis fell at all points.

TORNADO AT BOONEVILLE, ARK.

By H. F. ALCIATORE, Section Director, Little Rock, Ark.

A destructive local storm occurred at Booneville, Logan County, Ark., about 11.45 p. m., August 3, 1912.

The postmaster at that place reported that (1) the storm moved from SW. to NE.; (2) that a pendant, funnel-shaped cloud was observed; (3) that the path of great destruction was about 250 yards wide; (4) that the damage

sustained in the city, as to loss in wrecked buildings, water-soaked household effects, merchandise, etc., was about $50,000, and the loss to crops about $10,000; (5) that no one was killed, but that six persons were injured.

Dr. E. F. Hodges, of Booneville, in a press dispatch, has stated that:

> Later reports showed that 48 houses were either partially or totally destroyed; that the lowest estimate of the damage sustained was about $50,000; and that the heavy rains in Logan County did great damage to crops in the lowlands.

Another press report from Booneville says: (1) That the wind blew at an estimated velocity of 75 miles an hour, and that the storm was accompanied by a heavy downpour of rain; (2) trees were uprooted, fences were lifted high and strewn about the streets; houses, some remaining intact and some completely wrecked, were lifted from their foundations and carried some distance; many buildings were unroofed, as were several freight cars standing in the railroad yards; (3) the high school building had all the interior wrecked by the storm, while the walls remained intact.

This storm developed in the northwest quadrant of a small and shallow barometric depression that was central over the central part of Arkansas on the morning of August 3, with unusually steep barometric gradient to the northward. The pressure was 29.98 inches, and the wind northeast at Fort Smith (about 33 miles northwest of Booneville), and 29.95 inches, and wind northwest at Little Rock.

The tornado appears to have spent all its force within the limits of Booneville and its suburbs.

CAUSE OF THE EQUABLE TEMPERATURE CONDITIONS AT NEW ORLEANS, LA.

By EDWARD D. COBERLY, Local Forecaster.

It is a well-known fact that proximity to large bodies of water renders the climate of any locality less severe and gives greater freedom from sudden changes than is enjoyed by places removed from an extended water surface. When the locality is nearly or quite surrounded by water, this effect is accentuated, and stands out clearly when the records of temperatures are examined from places differently located with reference to the water surface.

It is the purpose of this article to show in a brief manner why the winter climate of New Orleans is less severe and the summer weather cooler and more pleasant than at places located farther inland or at places located on the open Gulf, but with no large body of water to the northward to protect them against the extreme heat of summer and cold of winter carried by the northerly winds from the interior of the country.

New Orleans is practically surrounded by a water surface, and in addition the level of ground water in the city itself is very high, keeping the surface much more nearly in a saturated condition than in the other localities considered in this investigation. To the north of the city is Lake Pontchartrain, a body of water of large extent, but relatively shallow (its greatest depth being but 15 to 20 feet), to the northwest is Lake Maurepas, to the southwest Lake Salvador, and to the east Lake Borgne, while to the southward, 40 to 60 miles distant in a straight line, is the broad expanse of the Gulf of Mexico, and directly in front of the city, almost inclosing it in a curve, runs the Mississippi River, approximately three-fourths of a mile wide and more than 100 feet deep. In addition to the aforementioned bodies of water, there are in this vicinity large areas of marsh land, covered with water during the larger part of the year, and numerous creeks and bayous course the region, so that the reader can readily see that the proportion of water to land surface is very large.

Physical experiments tell us that it takes about four times as many calories of heat to raise the temperature of a water surface by a given amount as it does to raise the temperature of a land surface by the same amount. The exact proportion varies with the character of the land surface, a sandy surface heating up more quickly in the sunlight and cooling more quickly in the shade than a similar surface composed of a clay soil. Likewise in cooling during the night and in winter the water surface cools much more slowly than the land and liberates a much larger quantity of heat than a land surface would liberate in cooling the same number of degrees. In other words, if the temperature of a water surface is lowered 1°, enough heat is liberated to raise the temperature of the overlying air about 4°, while a land surface in cooling 1° would liberate only enough heat to raise the temperature of the overlying air one-fourth degree. This shows very clearly that the large water surface adjacent to the city of New Orleans must exert a great influence on the temperatures there observed. Indeed, if it were not for this influence, there is no doubt in the writer's mind the summers would be much hotter and the winters much colder than they now are.

In order to bring out the facts in the case, the climatic records for New Orleans, La., Amite, La., located north of Lake Pontchartrain some distance, and in a county characterized by loose, sandy soil, and Mobile, Ala., with Mobile Bay on the Gulf side, but with no water surface to the northward, have been summarized, and the results are presented herewith. The locations of the places discussed are such that with similar exposure relative to the water surface there should be no such differences in temperatures as are seen to exist.

Let us first consider the normal temperatures of the places month by month. January is the coldest month of the year, the monthly mean at New Orleans being 53.0°, while at Mobile it is 49.8°, or 3.2° degrees colder than at New Orleans, and at Amite it is 51.3°, or 1.7° colder than New Orleans. During the midsummer months the means differ but little, the prevailing winds at all places then coming from the southward, and consequently off a water surface, the July mean at both New Orleans and Amite being 81.3° and at Mobile 80.5°, while during August Amite is the warmest of the three places, as was expected from the location of the place, the greater frequency of winds from a northerly quarter, and the fact that there are fewer rainy days at that station during August than July, thereby allowing the sandy soil to heat rapidly by day, thus storing more heat than is lost at night by radiation.

We will now take up the mean maximum temperatures. During the winter months the differences in mean maxima are not marked, but it is noted that the mean maximum at Amite is higher than at either Mobile or New Orleans, which is as expected from its location, the sandy soil heating rapidly by day and warming the overlying air by conduction and local convection. In summer the differences are more marked and more important from the standpoint of comfort of the inhabitants of the cities. July is the warmest month, considering the maximum temperatures, in New Orleans, the mean maximum being 89°; June and August have mean maxima of 87° and 88°, respectively. At Mobile the mean maximum for June is 88°, July 90°, and August 89°, while the same months at Amite show 91°, 92°, and 92°, respectively. This shows clearly how

the maximum temperatures are kept down to moderate measures by the great absorptive power of the large water surface adjacent to New Orleans.

In the case of the mean minimum temperatures the facts come more clearly to view than in any of the preceding cases. In January the mean of the lowest temperatures at New Orleans is 47°, at Mobile 43°, and at Amite 40°, thus showing at a glance how the minima at New Orleans are kept up by the warmth of the adjacent water, and how low temperatures are accentuated by a radiating surface of loose sandy soil such as that at Amite, La. During the summer months the minima are higher at New Orleans than at either Amite or Mobile, thus giving a smaller diurnal range of temperature at New Orleans than is enjoyed by places less favorably situated.

In considering extremes of temperature the tables following this discussion speak for themselves. The absolute minima are higher and the absolute maxima lower at New Orleans than at either of the other two places for which data are given. A maximum temperature of 100° has been recorded twice at New Orleans and a maximum of 102° once within 41 years, and these readings were recorded in July and August only, the temperature having never reached the 100° mark in any other months of the year. At Mobile the record is: June, 101°; July, 102°; August, 101°; while at Amite the records for those months are 105°, 104°, and 104°, respectively. At New Orleans, while the temperature reaches 90° every year, during 15 out of the last 41 years the highest temperature for the year has been below 95°.

The lowest temperature ever recorded at New Orleans was 7°, while at Amite it was 1°, and at Mobile −1°. It is this absence of extremely low minima, except on very rare occasions, that makes possible the raising of many varieties of the orange in and near New Orleans that can not be cultivated elsewhere on the Gulf coast outside of the State of Florida. In 3 years out of the last 41 freezing temperatures have not been recorded in New Orleans, and in 22 years out of 41 the annual minimum temperature has been higher than 25°.

The writer believes that he has shown conclusively that the large water surface surrounding the city of New Orleans exerts a marked and powerful control over temperature conditions in and near the city, rendering the winters warmer and the summers cooler than would otherwise be the case, and giving a freedom from extreme heat, cold, and sudden changes not enjoyed elsewhere in the Mississippi Valley.

As an appendix I have presented in tabular form a brief summary of temperature conditions at the stations discussed, compiled from all available figures, which it is believed will prove valuable and instructive in connection with the point under consideration.

Appendix.

NORMAL TEMPERATURE (TENTHS).

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
New Orleans....	53.0	56.3	62.0	67.9	74.5	79.6	81.3	81.0	78.0	69.5	60.6	54.4
Mobile.....	49.8	53.2	59.1	66.0	73.6	79.1	80.5	79.7	76.5	67.1	57.5	51.5
Amite.....	51.3	52.6	62.1	67.3	73.8	79.7	81.3	81.3	77.3	66.5	58.7	51.1

MEAN MAXIMUM TEMPERATURES.

New Orleans....	61	64	70	76	83	87	89	88	85	78	69	63
Mobile.....	59	62	68	75	83	88	90	89	86	77	67	60
Amite.....	62	64	73	79	86	91	92	92	89	81	71	65

MEAN MINIMUM TEMPERATURES.

New Orleans....	47	50	55	61	68	74	76	75	72	63	54	48
Mobile.....	43	46	52	58	66	72	74	73	70	59	50	46
Amite.....	40	42	50	56	63	68	70	70	65	52	46	40

ABSOLUTE MAXIMUM TEMPERATURES.

New Orleans....	82	82	86	89	94	98	102	100	96	94	85	83
Mobile.....	78	80	86	90	98	101	102	101	97	95	83	80
Amite.....	83	84	90	91	98	105	104	104	99	98	89	85

ABSOLUTE MINIMUM TEMPERATURES.

New Orleans....	15	7	30	38	52	58	68	63	55	40	29	20
Mobile.....	11	−1	25	32	46	50	64	57	49	34	25	14
Amite.....	13	1	20	28	38	50	53	50	44	29	22	10

TABLE 1.—*Climatological data for August, 1912. District No. 7, Lower Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Buena Vista	Chaffee	7,955	12	56.8	− 1.4	79a	11	35	9	43a	1.75	+ 0.59	0.50	0	7	18	7	6	nw.	C. A. Short.
Calhan	El Paso	6,700	5																	H. B. Rice.
Canon City	Fremont	5,343	24	71.6	− 0.9	95	26	50	7	38	2.11	+ 0.33	0.57	0	7	28	2	1	n.	U. S. Weather Bureau.
Colorado Springs	El Paso	6,098	32	63.8	− 3.1	86	26	43	8	34	1.00	− 1.11	0.52	0	8	13	7	11	se.	Colorado College.
Cripple Creek	Teller	9,369	11								3.19	+ 0.41	0.86	0	13					F. G. Willis.
Cuchara Camps	Huerfano	8,200	3								1.72		0.74	0	5	21	7	3	sw.	George A. Mayes.
Eads	Kiowa	4,209	5	78.8		103	26	62	10	28	0.30		0.20	0	2	20	10	1	e.	Mrs. Mattie A. Kerr.
Fairview	Custer	9,500	3								2.38		0.80	0	10	14	17	0	ne.	Elizabeth L. Grey.
Fremont Experiment Station.	El Paso	8,850	2	56.0		76	29	38	9	29	1.82		0.71	0	11	17	12	2	w.	U. S. Forest Service.
Garfield	Chaffee	9,510	2								1.44		0.75	0	10	23	4	4	w.	Lloyd N. Felton.
Hamps	Elbert	5,400	19	65.8	− 1.0	91	27	40	9	42	1.50	− 0.70	0.48	0	9	19	7	5	n.	W. Hamp.
Hermit Lake	Custer	10,000	2								1.95		0.82	0	6	20	7	4	sw.	John E. Graham.
Hoehne (near)	Las Animas	5,700	20	70.0	+ 0.3	94	26†	45	7	42	1.25	− 0.55	0.31	0	8	27	2	2	w.	S. W. De Busk.
Holly	Prowers	3,380	17	73.7	− 2.7	98	26	50	9	43	2.13	+ 0.48	1.52	0	4	10	5	16	se.	Holly Sugar Co.
La Junta	Otero	4,052																		Fred B. Mason.
Lake Moraine	El Paso	10,265	18	53.0	− 0.3	74	11	33	22	34	2.99	− 0.49	0.71	0	13	8	12	11	sw.	Clyde C. McReynolds.
Lamar	Prowers	3,592	22	75.2	− 1.8	101	12†	52	9	44	3.54	+ 1.62	2.75	0	4	21	9	1	s.	J. T. Lawless.
Las Animas	Bent	3,899	44																	F. M. Tague.
La Veta Pass	Costilla	9,000	2																	Clara M. Wright.
Leadville	Lake	10,248	16	52.6	− 1.8	78	26	34	8	38	0.83	− 0.77	0.24	0	10	13	14	4	w.	U. S. Weather Bureau.
Limon (near)	Elbert	5,360	5	66.4		90	10†	45	9	41a	2.54a		1.24	0	8a	22a	5a	3a	s.	F. L. Palmer.
Madrid	Las Animas		2								1.38		0.33	0	12					Thomas Sawers.
Manitou	El Paso																			John Faucher.
Marshall Pass	Saguache	10,846	9								0.90		0.70	0	3	17	10	4		W. L. Williams.
Monument	El Paso	7,200	1	61.9		85	26	38	9	38	1.70		0.67	0	7	21	5	5	sw.	U. S. Forest Service.
North Lake	Las Animas	8,700	20								1.95	− 0.85	1.24	0	8	23	7	1	nw.	James W. Ingmire.
Pueblo	Pueblo	4,734	24	72.0	− 0.1	96	25	50	9	41	1.85	+ 0.28	0.67	0	7	15	13	3	se.	U. S. Weather Bureau.
Rocky Ford (near)	Otero	4,177	23																	P. K. Blinn.
St. Elmo	Chaffee	9,500	3								1.55		0.33	0	8	18	10	3	sw.	Daniel Clark.
Salida	do	7,035	13	61.9	− 3.3	87	13	35	24	49	0.67	− 0.77	0.23	0	5	27	1	3	w.	M. D. L. Buell.
Santa Clara	Huerfano	8,252	17	62.4	− 0.2	85	11	43	7†	38	3.01	+ 0.19	0.91	0	14	8	21	2		Lincoln G. Morris.
Sheridan Lake	Kiowa	4,065	10																	Howard Gamble.
Stonewall	Las Animas	8,000	6								2.43		1.01	0	10	11	13	7		G. A. Storz.
Trinidad	do	5,994	16	69.6		92	10	49	7†	38	1.98	− 0.23	0.68	0	12	4	26	1		Walter Dearden.
Two Buttes	Baca	4,100	1																	N. G. Jones.
Victor	Teller	10,100	8	56.6		75	11†	36	22	31	2.25		1.07	0	11	19	9	3	w.	Fred Jones.
Vilas	Baca	3,935	21								1.69	+ 0.14	0.91	0	4	18	11	2	sw.	Carrie Konkel.
Wayne	El Paso										3.47		1.41	0	7	20	9	2	se.	J. C. Groff.
Westcliffe	Custer	7,864	18	61.0	+ 0.5	85	11†	36	9	48	1.15	− 0.41	0.40	0	4	14	12	5	nw.	Zack Jordan.
Winfield	Chaffee	9,765	2								1.03		0.33	0	11	2	25	4	sw.	John G. Payne.
Woodman Sanatorium	El Paso		1	66.0		90	25	44	9	38	1.23		0.35	0	8	25	5	1	s.	Woodman Sanatorium.
Wortman	Lake	11,250	11								0.30	− 2.77	0.10	0	3	16	12	3	nw.	George C. Wortman.
New Mexico.																				
Abbott	Mora	5,771	3			98	2†	52	24		1.86		0.76	0	7	13	15	3	s.	Agent E. P. & S. W. R. R.
Albert	Union	4,700	22	79.2	+ 2.6	101	17	60	4†	36	0.84	− 1.52	0.35	0	5	20	8	3	w.	Andrew Knell.
Aurora	Colfax	8,849	3								4.00		2.51	0	12	0	29	2	nw.	Juanita Lucero.
Bell Ranch	San Miguel	4,500	13	76.1		101	11	55	9	41	3.50	+ 1.42	1.08	0	9	7	20	4	se.	C. M. O'Donel.
Black Lake	Colfax	8,348	3								2.93		1.06	0	8	2	23	6	se.	Ralph T. Martinez.
Cabeza	San Miguel	5,406	3								3.91		1.50	0	9	9	15	7	sw.	Agent E. P. & S. W. R. R.
Campana	do	4,493	3	78.8		100	2	58	9	36	2.03		0.72	0	7	22	7	2	sw.	Do.
Chacon	Mora	9,000	3								3.76		1.39	0	10	4	24	3	w.	Alfred Lucero.
Cimarron (near)	Colfax	6,385	8	66.4		89	11	45	19†	40	2.20		1.37	0	9	7	15	9	e.	Wm. French.
Clayton	Union	5,178	7																	Dr. W. W. Chilton.
Clovis	Curry	4,129	1	75.2		101	2	56	5	38	6.26		4.05	0	8	18	11	2	sw.	J. H. Barry.
Cuervo	Guadalupe	4,849	3	78.2		100	11	62	14†	35	1.45		0.68	0	5	16	1	14	sw.	Agent E. P. & S. W. R. R.
Dawson	Colfax	6,396	3	69.5		95	10	48	7†	43	1.39		1.00	0	4	7	14	10		Do.
Elizabethtown	do	8,465	7	56.4		84	25	29	7	52	1.88		0.47	0	10	10	18	3	w.	Mable Carrington.
Folsom	Union	6,399	12	67.2	− 0.6	88	10†	47	8	38	3.56	+ 0.88	1.10	0	9	19	10	2	sw.	David Rope.
Fort Union	Mora	6,835	52	64.2	− 2.6	90	11	41	7	44	4.04	+ 0.16	1.70	0	8	23	7	1		M. C. Needham.
Hayden	Union	4,444	2	73.2		97	25	53	9	39	3.13		0.72	0	12	7	24	0	sw.	J. B. Dickson.
Hoosier Ranch	Mora		1								2.82		0.75	0	10	12	19	0	sw.	W. H. Guthman.
Johnsons Park	Colfax	6,722	3								1.66		0.66	0	11	15	12	4	sw.	A. J. Meloche, jr.
Johnsons Ranch	Mora	5,784									2.90		1.06	0	8	18	13	0		J. W. Johnson.
Kappus	Quay	4,010	1																	A. Kappus.
Lake Alice	Colfax	7,160	3																	John Bell.
Logan	Quay	3,851	6	76.9		100	10	55	9	37	4.21		1.81	0	6	22	9	0	sw.	John B. Reneau.
Lykins (near)	Roosevelt	5,000	2								2.67		1.38	0	5	26	5	0	s.	J. G. Buchanan.
Maxwell (near)	Colfax	5,894	5								2.17		0.45	0	8					D. N. Jackson.
Melrose	Curry	4,400	4								1.71		0.60	0	6					Dr. B. M. Porter.
Miami Ranch	Colfax	6,000	4	66.8		90	10†	43	7	45	2.14		0.50	0	10	4	27	0	w.	Farmers' Devel. Co.
Mills (near)	Mora	5,985	1								2.92		0.73	0	13	11	5	15	sw.	J. E. La Rue.
Montoya	Quay	4,335	3			98	11†				2.50		0.62	0	8	20	4	7	sw.	Agent E. P. & S. W. R. R.
Mount Dora (near)	Union	5,600	1	69.2[1]		91[1]	10†	49[b]	9	40[1]	3.35			0	9	17	10	4	sw.	Edw. F. Grygla.
Nara Visa	Quay	4,225	6																	Geo. M. Rymal.
Palo Verde	Mora	5,880	1								2.81		0.60	0	11	0	31	0	s.	G. R. Abernathy.
Pasamonte	Union		3								1.95		0.59	0	5	19	5	7	w.	J. J. Heringa.
Pleasant View	Mora		1								2.96		0.95	0	9	8	23	0		R. W. Boulware.
Portales	Roosevelt	4,004	2	75.8		98	2	58	23†	34	3.66		1.10	0	12	5	14	2	s.	Portales Irrigation Co.
Raton	Colfax	6,660	14	67.1	− 1.3	91	27	46	8	38	1.93	− 0.20	0.44	0	10	16	6	9	nw.	Humphrey & Wiseman.
Rociada	San Miguel	8,200	8	60.6		85	7†	36	14	43	2.55		1.00	0	7	17	11	3		J. E. Dailey.
Rosebud	Union	4,500	1								2.23		0.98	0	6					H. A. Nachtrieb.
Roy	Mora	5,884	3								3.50		0.72	0	12	12	15	4	sw.	Agent E. P. & S. W. R. R.
Roy (near)	do	5,880	1								3.27		0.65	0	11	7	23	1	sw.	Baum Bros.
San Jon	Quay	4,200	5	77.2		100	11	57	9	36	2.33		0.68	0	8	18	5	8	sw.	Jesse T. White.
Salano	Mora	5,622	3	70.2		92	26	50	5†	36	3.26		0.90	0	12	19	6	6	sw.	F. A. Hughes.
Springer	Colfax	5,857	20	69.8	0	92	25	46	7†	44	1.77	− 0.34	0.40	0	9	20	11	0	w.	Agent A. T. & S. F. R. R.
Taylor	do	5,661	3	70.6		100	13	40	16†	45	3.35		1.50	0	7	0	31	0	sw.	Agent E. P. & S. W. R. R.
Trementina	San Miguel	5,000	4																	Miss Alice Blake.
Tucumcari	Quay	4,149	7	77.3		103	11	57	9	38	3.74		1.31	0	10	24	6	1	sw.	J. F. Seaman.
Valley	Union	5,000	7	74.5		96	26	52	8	40	4.49		2.30	0	10	11	19	1	s.	M. Letitia Payne.
Vance (near)	do		1								3.56		0.89	0	12	21	8	2	se.	C. E. Anderson.
Vermejo Park	Colfax	7,600	7	63.4		86	8†	41	15†	41	4.22		1.10	0	15	4	16	11		H. W. Adams.
Wagon Mound (near)	Mora	6,300	3	66.4		92	11	43	7	47	3.01		1.32	0	9	10	15	6	sw.	Guy L. Barnes.

TABLE 1.—*Climatological data for August, 1912. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas.																				
Amarillo	Potter	3,676	20	76.4	+ 1.8	97	26	55	9	32	2.28	− 0.53	0.90	0	7	21	9	1	sw.	U. S. Weather Bureau.
Archer City	Archer		1								3.15		1.63	0	8	21	10	0	se.	Charles H. Thuman.
Arthur City	Lamar	590	20								3.26	+ 1.26	1.50	0	5	21	0	10		V. V. Bright.
Bonham	Fannin	566	9	82.0		104	21	63	5	32	3.39		0.72	0	7	13	12	6	s.	H. M. Norman.
Canadian	Hemphill	2,339	5																	Canadian Academy.
Childress	Childress	1,869	19								3.99	+ 1.98	2.20	0	4	26	0	5	se.	George Baker.
Chillicothe	Hardeman	1,406	4								3.83		1.39	0	6					A. B. Connor.
Clarendon	Donley	2,719	7	79.4		103	2	57	9	39	2.55		1.00	0	6	16	8	7	sw.	Whitfield Carhart.
Clarksville	Red River	442	12	81.8	− 1.8	100	20†	58	4	30	2.47	− 0.04	0.60	0	6	15	13	3		J. W. O'Niell.
Claude	Armstrong	3,397	7								3.20		1.25	0	4					Fort W. & D. C. Ry.
Dalhart	Dallam	3,998	7	74.3		97	12	55	9	37	3.34		0.70	0	9	7	18	6	sw.	W. A. Primm.
Denison	Grayson		12	12							6.50	+ 3.46	1.70	0	7	17	4	10	s.	J. L. Wilson.
Finley	Bowie		2								4.35		2.00	0	4	21	1	9	s.	Robert L. Smith.
Henrietta	Clay	915	20	83.7	− 0.2	101	28	62	23	37	3.94	+ 1.49	1.50	0	9	18	0	13	s.	C. K. Brown.
Hereford	Deaf Smith	3,750	7																	A. C. Elliott.
Memphis	Hall	2,067	7	76.0		101	2	56	26	41	4.34		1.93	0	4	19	0	12		Fort W. & D. C. Ry.
Miami	Roberts	2,743	6	78.8		103	29	55	23	40	2.67		0.78	0	7	22	7	2	s.	J. E. Kinney.
Mobeetie	Wheeler		18																	Dr. W. J. Joss.
Ochiltree	Ochiltree		4								1.63		0.47	0	7					S. J. Allen.
Panhandle	Carson	3,450	3								2.60		1.00	0	6	20[a]	5[a]	5[a]		J. Sid O'Keefe.
Paris	Lamar	592	23	78.9	− 3.4	96	3†	60	5†	34	6.61	+ 4.27	1.80	0	10	16	3	12	s.	Robert A. Miller.
Plemons	Hutchinson		5	76.8		100	28	55	9	40	2.54		1.02	0	10	15	11	5	se.	C. S. Solomon.
Quanah	Hardeman	1,563	10	82.2		101	24†	64	7†	33	3.82	+ 1.64	1.40	0	8	17	7	7	s.	William H. Crawford.
Ringo Crossing	Hopkins		2								4.67		1.90	0	5	11	5	15	sw.	H. J. Palmer.
Romero	Hartley		2	75.2		98	10†	54	9	38	3.01		1.00	0	10	18	11	2	s.	R. S. Chamberlain.
Sherman	Grayson	745	19	81.6	− 0.4	96	2†	64	6	23	3.19	+ 0.64	1.10	0	7	18	1	12	s.	R. A. Gibbs.
Stratford	Sherman	3,699		75.8[e]		99	28	56	9†	40	2.19		0.70	0	6	9[e]	16[e]	1[e]	s.	J. W. Elliott.
Texline	Dallam	4,694	7																	Fort W. & D. C. Ry.
Tulia	Swisher	3,501	14	77.6	+ 0.5	99	2†	59	7	36	3.97	+ 2.15	1.01	0	10	12	18	1	s.	Lou Mulhall.
Wellington	Collingsworth																			J. D. Camp.
Wichita Falls	Wichita	958	20																	E. F. Mittmann.
Winfield	Titus		2								8.38		5.91	0	5	3	26	2	sw.	J. B. Newberry.
Kansas.																				
Alden	Rice	1,684	2								4.61		1.08	0	7	26[a]	0[a]	4[a]	se.	L. B. Wait.
Anthony	Harper	1,329	15	81.0		105	24†	58	9	38	3.53	+ 0.37	1.50	0	9	14	15	2	sw.	R. H. Beebe.
Ashland	Clark	1,951	24	80.0	+ 0.4	105	24†	52	8	46	2.94	+ 0.52	1.58	0	10	12	17	2	s.	C. W. Carson.
Burlington	Coffey	1,010	19	79.0	+ 1.0	102	13†	55	4†	38	4.01	− 0.62	2.13	0	6	0	30	1	s.	O. E. Sanford.
Chanute	Neosho	940	8	80.2		101	19	54	3	37	3.44		2.20	0	4	16	11	4	s.	C. W. Brown.
Cimarron	Gray	2,700		75.3[d]		99	26	52	9†	39	9.84		4.02	0	7	18[b]	8[b]	3[b]	sw.	C. C. Isely.
Coffeyville	Montgomery	747																		A. F. Briggs.
Coldwater	Comanche	2,090	15	78.2	− 1.9	101	26	56	9	34	5.95	+ 3.57	2.79	0	9	26	5	0	s.	J. L. Stanley.
Columbus	Cherokee	898	22	78.8	+ 1.4	102	20	55	5	33	1.83	− 2.16	1.01	0	4	23	8	0	sw.	O. E. Skinner.
Coolidge	Hamilton	3,348	15	73.9	− 2.4	100	26	50	9†	47	1.55	− 0.36	1.42	0	2	19	11	1	se.	W. R. Padley.
Cottonwood Falls	Chase	1,234	8	78.3		101	28	53	1	36	4.53		1.29	0	9	20	4	7	sw.	E. B. Greene.
Council Grove	Morris	1,234	3	77.4		99	28	54	1	33	3.67		1.31	0	8	13	16	2	s.	J. P. Blackledge.
Cunningham	Kingman	1,680	28	80.1	+ 1.7	110	24†	55	9†	45	3.00	+ 0.09	0.85	0	6	15	15	1	sw.	W. H. Morton.
Dodge City	Ford	2,513	38	76.5	0	98	26	56	9	34	5.80	+ 3.21	2.88	0	8	17	10	4	s.	U. S. Weather Bureau.
El Dorado	Butler	1,291	10	78.0		96	25†	56	10	31	4.76		3.20	0	6	20[a]	8[a]	2[a]	s.	W. Y. Miller.
Ellinwood	Barton	1,790	37	79.8	+ 2.0	104	26	55	9	39	4.50	+ 1.42	0.97	0	13	9	21	1	s.	Martin Musil.
Emporia	Lyon	1,138	31	78.7	+ 2.1	104	28	56	5	34	2.74	− 1.09	0.85	0	7	22	2	7	s.	W. H. Boyles.
Eureka	Greenwood	1,079	16	79.4		103	26†	54	10	38	2.58	− 0.61	0.98	0	7	22	8	1	s.	Mrs. T. C. Peffer.
Fall River	do	925	16	80.4	+ 2.2	104	28	56	1†	37	3.61	+ 0.45	2.15	0	7	28	3	0	s.	J. McDaniel.
Fargo	Seward		2								5.70		2.62	0	7	10	19	1	s.	N. B. Swink.
Fredonia	Wilson	975	9	81.2		105	20†	55	4	36	1.49		0.97	0	7	22	7	2	sw.	B. W. Holmes.
Garden City	Finney	2,836	23	76.4	− 1.7	103	25	51	9	44	3.91	+ 2.12	1.90	0	8	12	12	7	s.	B. F. Stocks.
Great Bend	Barton	1,850	3								4.05		0.70	0	8	24	5	2	sw.	I. Pritchard.
Greensburg	Kiowa	2,235	5	78.3		100	26	58	3	33	5.65		2.50	0	8	27	3	1	s.	C. C. Raymond.
Grenola	Elk	1,116	24	79.7	+ 1.8	102	27†	55	5†	38	2.83	− 0.14	0.88	0	6	19	11	1	sw.	W. H. Lawyer.
Hess	Gray		6																	Harry Jacques.
Howard	Elk	1,112	5	78.2[c]		99[b]	13	57	1†	34	3.73		1.98	0	6	26	2	3	sw.	J. W. Eby.
Hugoton	Stevens		8																	F. A. McCoy.
Hutchinson	Reno	1,535	22	79.1	+ 1.1	106	26	57	3	40	3.95	+ 1.17	1.26	0	8	18	9	4	sw.	E. S. Webster.
Independence	Montgomery	800	38	80.2	+ 0.4	102	20	54	10	38	3.24	+ 0.09	2.59	0	5	21	7	3	s.	F. L. Kenoyer.
Iola	Allen	984	6	79.1	+ 2.8	100	28	54	4	34	3.78	+ 0.31	2.68	0	8	17	13	1	s.	U. S. Weather Bureau.
Irene	Hamilton	3,440	2	75.6		102	12	49	9	44	2.65		2.00	0	5	12	14	5	se.	N. M. Herbig.
Jetmore	Hodgeman	2,268	11	76.6		103	26	53	9	43	4.84	+ 2.72	2.54	0	9	17	13	1	s.	James Aiken.
Kingman	Kingman	1,504	4	79.2		105	28	56	9	38	4.74		1.41	0	9	14	17	0	sw.	B. B. Anawalt.
La Crosse	Rush	2,061	10	79.8		110	26	52	9	45	2.58	− 0.50	0.97	0	5	22	8	1	sw.	Rodney Torrey.
Lakin	Kearney	2,993	22	73.9	− 3.4	100	29	49	9	44	2.14	+ 0.22	0.65	0	6	18	11	2	s.	C. H. Longstreth.
Larned	Pawnee	2,090	27	78.1		102	26	55	9	38	4.78	+ 2.07	1.42	0	9	21	8	2	s.	H. H. Wolcott.
Lebo	Coffey	1,138	26	78.9	+ 1.9	101	25†	55	4	32	2.38	− 1.94	0.76	0	8	19	10	2	s.	J. J. Bowman.
Le Roy	do	990	3								4.09		1.33	0	7	17	2	12	s.	F. W. Schmitt.
Liberal	Seward	2,843	5	77.7		99	12†	56	9	37	6.17		1.70	0	7	20	1	10	se.	Dr. R. T. Nichols.
Macksville	Stafford	2,032	23	76.4	− 0.4	98	26	55	9	33	7.51	+ 4.51	2.70	0	12	15	9	7	sw.	Mrs. Nelia Poling.
McPherson	McPherson	1,495	23	78.4	− 0.1	105	26	55	3	40	5.95	+ 2.49	2.24	0	8	16	6	9	sw.	Ed. F. Haberlein.
Madison	Greenwood	1,074	11	77.6	+ 0.3	102	28	52	1†	40	3.08	− 0.79	1.25	0	6	12	17	2	se.	C. A. David.
Marion	Marion	1,310	19	78.2	− 0.7	102	28	56	3†	33	4.51	+ 1.31	0.88	0	8	15[a]	14[a]	1[a]	s.	Jerry Forney.
Medicine Lodge	Barber	1,259	19	80.0	− 0.5	105	25†	55	9	44	4.69	+ 2.38	3.16	0	5	15	14	2	sw.	S. P. Garrison.
Medora	Reno	1,484	3								3.95		1.40	0	9	18	4	9	s.	M. L. Rickenbrode.
Minneola	Clark	2,558									4.23		1.45	0	7	22	6	3	sw.	A. P. Reece.
Mount Hope	Sedgwick	1,410	15								2.57	− 0.37	0.64	0	7	19	12	0	s.	H. N. Renfrew.
Neosho Rapids	Lyon	1,092	7								1.82		0.55	0	5	25	3	3	sw.	W. H. McMullin.
Ness City	Ness	2,260	19								3.26	+ 0.52	1.55	0	8					J. K. Barnd.
Newton	Harvey	1,454	15	78.3	− 0.3	103	26	57	3	36	5.11	+ 1.67	1.96	0	9	19	10	2	s.	H. A. Brush.
Norwich	Kingman	1,496	16	80.4	+ 0.3	102	24†	59	3†	36	4.48	+ 1.58	1.13	0	8	15	15	1	se.	N. I. Farris.
Oswego	Labette	899	18	78.4	− 0.4	99	28	54	4	32	1.50	− 1.91	1.06	0	5	22	9	0	sw.	Jas. M. Currigan.
Plains	Meade	2,766	2	76.0		96	26†	53	9	33	5.15		1.50	0	6	12	18	1		E. J. Henning.
Pratt	Pratt	1,950	17	81.2	+ 1.3	106	26	56	9	41	2.95	− 0.03	0.86	0	7	19	11	1	s.	T. J. Arnold.
Richfield	Morton		1	76.3	− 1.0	100	11†	55	9†	41	1.34	− 0.43	0.45	0	10					M. J. Allen.
Rome	Sumner	1,218	26	79.4	+ 1.1	102	26	59	5†	36	8.89	+ 5.82	5.50	0	10	19[a]	9[a]	2[a]	s.	D. M. Adams.
Sedan	Chautauqua	834	27	80.2	+ 1.1	104	26†	57	11	42	1.53	− 2.24	0.68	0	6	22	6	3	s.	A. Y. Buckles.
Toronto	Woodson	1,040	15	80.9	+ 3.1	105	16	51	4	37	2.28	− 0.84	1.10	0	5	29	0	2	s.	M. A. Webb.
Ulysses	Grant	3,050	21	77.6	− 0.8	102	29	53	9	45	1.64	+ 0.22	0.60	0	5	11	17	3	sw.	T. W. Marshall.
Walnut	Crawford	940	10	77.8[f]	0	100[f]	19†	52[f]	4	36	2.49	− 1.51	2.16	0	4	19[f]	6[f]	0[f]	sw.	R. C. Harlan.
Wellington	Sumner	1,225	16	80.4	+ 2.4	104	27†	57	10	37	4.09	+ 1.00	1.25	0	9	19	9	3	s.	E. O. G. Kelley.
Wichita	Sedgwick	1,377	25	78.2	+ 0.7	100	28	58	3	30	3.14	+ 0.03	1.01	0	9	17	13	1	s.	U. S. Weather Bureau.
Winfield	Cowley	1,124	18	79.0	− 0.3	100	28	59	9	32	3.15	+ 0.07	1.25	0	6	23	4	4	s.	M. B. Light.
Yates Center	Woodson	1,068	33	78.6	+ 2.5	102	12	53	4†	36	2.45	− 0.65	1.01	0	7	14[e]	14[e]	0[e]	s.	J. W. Tipton.

TABLE 1.—*Climatological data for August, 1912. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oklahoma.																				
Ada	Pontotoc	1,001	4	79.9	.....	100	27	62	5†	28	5.11	.....	1.31	0	9	22	6	3	s.	W. S. Creveling.
Alva	Woods	1,350	7	82.2	.....	106	25	59	9	38	3.64	.....	1.50	0	6	6	24	1	s.	S. A. Stech.
Apache	Caddo	1,255	2	79.6	.....	101	27†	59	10	34	4.34	.....	1.07	0	7	25	3	3	sw.	G. D. Teeter.
Arapaho	Custer	1,575	18	79.0	− 2.3	104	27	56	9†	39	2.27	+ 0.23	0.87	0	5	23	6	2	s.	J. C. Brower.
Ardmore	Carter	872	10	81.3	− 2.0	101	27	61	6	33	5.28	+ 2.60	1.60	0	8	13	10	8	s.	H. T. Nisbett.
Arnett	Ellis	2,136	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Holmes.
Bartlesville	Washington	687	4	81.9	.....	105	26†	59	4	35	1.33	.....	0.58	0	5	21	8	2	s.	Dr. A. P. Owens.
Beaver	Beaver	2,500	15	78.4	− 2.6	101	28†	52	9	36	2.56	+ 0.20	0.89	0	6	26	4	1	s.	W. C. Frazer.
Blackburn	Pawnee	800	10	81.9	+ 0.5	107	27	57	2†	44	0.79	− 2.92	0.62	0	2	27	4	0	s.	M. M. Rhodes.
Cache	Comanche	1,350	6	77.6	.....	97	24†	57	10	34	4.01	.....	1.81	0	6	22	5	4	s.	Mrs. Frank Rush.
Calvin	Hughes	713	7	.....	.....	.....	.....	.....	.....	.....	2.05	.....	0.95	0	6	21	0	10	s.	Thomas Purcell.
Chandler	Lincoln	865	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. L. Kern.
Chattanooga	Comanche	1,150	6	79.2	.....	98	25	63	7	30	3.51	.....	1.76	0	6	21	4	6	s.	Squire Humble.
Chickasha	Grady	1,091	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. C. Good.
Cloudchief	Washita	1,400	10	80.4	− 1.4	102	27	59	9	34	4.38	+ 1.04	2.06	0	5	21	7	3	s.	J. P. Stutzman.
Crawford	Roger Mills	.....	.....	.....	.....	98	27	.....	.....	.....	2.43	.....	1.40	0	5	20	8	3	s.	W. W. Blackburn.
Durant	Bryan	643	10	80.6	− 1.4	99	20†	62	5	29	4.77	+ 1.93	1.00	0	8	21	5	5	s.	Nelson Houk.
Eldorado	Jackson	1,456	5	82.0	.....	102	27†	62	7	33	3.83	.....	1.67	0	7	20	8	3	se.	F. W. Lanham.
Elk City	Beckham	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Carlile.
El Reno	Canadian	1,400	20	81.7	+ 1.6	104	....	60	....	35[c]	1.47	− 1.52	1.10	0	4	22[c]	6[c]	0[c]	sw.	Rose E. Walker.
Enid	Garfield	1,269	10	80.8	− 0.4	106	27	55	9	36	2.25	− 1.03	0.94	0	7	21	8	2	s.	Uri B. Worcester.
Erick	Beckham	2,058	7	79.9	.....	105	....	58	....	40[b]	2.21	.....	0.93	0	7	10[b]	16[b]	3[b]	s.	A. W. Hanes.
Eufaula	McIntosh	566	....	79.6	.....	102	27†	57	5	34	2.53	.....	1.40	0	5	25	2	4	s.	R. Uhl Brown.
Fairland	Ottawa	839	12	80.0	+ 0.6	103	....	55	....	35[a]	2.71	− 1.58	1.39	0	5	15[a]	14[a]	1[a]	s.	C. W. Prier.
Fort Gibson	Muskogee	556	7	.....	.....	.....	.....	.....	.....	.....	3.84	.....	1.82	0	4	20	3	8	s.	John T. Welsh.
Frederick	Tillman	1,293	5	82.2	.....	102	27	63	9	34	2.95	.....	1.16	0	5	21	6	4	se.	B. B. Bradley.
Geary	Blaine	1,546	....	80.1	.....	102	25†	59	9	34	2.35	.....	0.71	0	9	22	4	5	s.	O. P. Ruth.
Goodwell	Texas	3,300	1	75.8	.....	99	12†	49	1	40	3.31	.....	1.07	0	10	15	10	6	s.	S. W. Black.
Guthrie	Logan	1,000	19	81.4	0.0	103	27†	60	5†	35	2.90	+ 0.02	2.60	0	3	25	4	2	s.	S. E. Smyer.
Guymon	Texas	3,133	2	.....	.....	.....	.....	.....	.....	.....	3.26	.....	0.89	0	13	15	16	0	sw.	A. L. Mordt.
Hartshorne	Pittsburg	700	13	81.7	− 2.3	103	27	60	5	31	3.92	+ 0.60	1.07	0	6	22	6	3	s.	Frank Webber.
Healdton	Carter	900	18	80.0	− 2.2	102	2	50	4†	35	6.20	+ 3.50	2.15	0	8	18	12	1	se.	C. H. Heald.
Helena	Alfalfa	1,396	4	82.0	.....	104	27	61	....	36[e]	1.61	.....	0.95	0	5	14	16	1	s.	R. E. Ellis.
Hennessey	Kingfisher	1,166	17	82.6	+ 0.5	107	....	59	....	39	2.36	− 0.52	1.83	0	5	9	12	1	s.	Mrs. M. C. Parks.
Hobart	Kiowa	1,396	9	79.3	.....	101	25	60	9†	35	4.30	.....	1.50	0	9	16	13	2	s.	Rev. J. E. Black.
Holdenville	Hughes	900	11	80.0	− 1.1	101	27	60	5	30	2.79	− 1.02	1.50	0	3	23	6	2	s.	Eula L. Rutherford.
Hooker	Texas	3,038	6	77.2	.....	103	12	54	23	45	2.19	.....	0.72	0	5	11	1	19	s.	H. N. Kelly.
Hurley	Cimarron	4,200	4	74.6	.....	99	30	53	26	40	.....	.....	.....	0	....	3	21	7	se.	Dr. C. W. Meyers.
Idabel	McCurtain	474	3	79.4	.....	99	19†	60	27†	39	4.50	.....	1.70	0	5	21	9	1	sw.	M. L. Henderson.
Jefferson	Grant	1,062	18	79.2	− 1.8	110	31	56	20	45	3.22	− 0.19	1.08	0	8	7	23	1	s.	T. E. Beck.
Kenton	Cimarron	4,000	11	73.0	− 2.9	95	10†	54	9†	40	5.30	+ 3.16	1.60	0	13	18	8	5	se.	Wm. H. Guy.
Kingfisher	Kingfisher	1,046	15	81.5	− 0.6	104	27	59	9†	37	3.44	+ 0.73	2.56	0	8	18	9	4	s.	J. C. Cross.
Lawton	Comanche	1,111	....	81.1	.....	101	28	62	6†	32	6.50	.....	5.10	0	4	22	6	3	s.	F. C. Davis.
McAlester	Pittsburg	698	15	82.5	.....	105	27	61	6	32	2.80	− 0.50	1.33	0	5	22	1	8	s.	Wm. Noble.
Mangum	Greer	1,585	19	81.0	− 1.1	102	2†	60	9	35	2.90	+ 0.34	1.60	0	6	21	2	8	se.	F. D. Dodson.
Marlow	Stephens	1,292	11	79.8	− 2.1	98	20†	62	2†	34	7.07	+ 5.03	2.80	0	9	16	7	8	se.	Wm. B. Anthony.
May	Harper	.....	.....	77.8	.....	101	28	53	9	37	3.58	.....	1.03	0	8	14	15	2	s.	G. C. Gray.
Meeker	Lincoln	1,030	18	78.4	− 2.7	102	26†	57	5†	37	3.55	+ 0.65	3.55	0	1	22	1	8	s.	Dr. J. H. Baugh.
Muskogee	Muskogee	614	13	81.3	0.0	103	28	58	7	31	3.19	+ 0.61	1.74	0	4	26	1	4	s.	J. Harry Randall.
Mutual	Woodward	.....	4	81.4	.....	109	13	56	9	41	2.36	.....	1.25	0	5	23	6	2	s.	Thos. Martin.
Neola	Caddo	1,500	6	79.8	.....	102	27	60	9†	34	3.69	.....	1.13	0	7	22	7	2	se.	R. N. Schooling.
Newkirk	Kay	1,149	14	83.4	+ 1.6	106	28	61	5	36	2.44	− 1.20	1.09	0	5	24	5	2	s.	H. P. Albright & Co.
Norman	Cleveland	1,171	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. E. Boyd.
North Muskogee	Muskogee	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.81	.....	1.36	0	4	23	0	8	s.	J. E. Walker.
Oakwood	Dewey	1,854	2	79.0	.....	103	26	55	22	40	2.18	.....	1.30	0	3	21	5	5	s.	Dr. F. P. Osborn.
Okeene	Blaine	1,194	7	82.1	.....	103	26	60	9	33	3.42	.....	2.78	0	7	24	5	2	s.	Dr. L. H. Murdoch.
Okemah	Okfuskee	.....	.....	80.2	.....	100	20†	59	5	33	2.96	.....	1.95	0	5	25	5	1	s.	S. F. Smith.
Oklahoma	Oklahoma	1,247	22	79.5	+ 1.0	98	27	62	9	27	3.61	+ 0.44	2.60	0	6	20	7	4	s.	U. S. Weather Bureau.
Okmulgee	Okmulgee	752	7	80.7	.....	103	27	60	4	33	3.66	.....	2.77	0	4	22	3	6	s.	J. L. Maynard.
Pauls Valley	Garvin	880	11	81.2	+ 0.3	100	26	63	6	28	4.20	+ 1.57	1.02	0	7	22	6	3	s.	A. M. Foss.
Pawhuska	Osage	918	11	83.6	+ 3.4	106	26	57	4	37	2.89	− 0.98	1.07	0	8	15	15	1	s.	R. C. Block.
Perry	Noble	920	13	80.4	− 0.7	102	28	58	1	40	6.41	+ 2.22	4.15	0	5	19	11	1	s.	S. E. Laird.
Rankin	Roger Mills	2,200	8	77.3	.....	99	24†	52	23	44	2.11	.....	0.80	0	6	18	11	2	sw.	Roy Kagay.
Ravia	Johnston	796	9	79.7	.....	98	20†	59	5	33	5.46	.....	1.59	0	8	19	6	6	s.	R. G. Guptill.
Sac and Fox Agency	Lincoln	900	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. P. Myers.
Shawnee	Pottawattomie	1,041	10	78.8	+ 2.2	101	27	58	6	32	3.91	+ 0.87	1.97	0	6	8	19	4	se.	Mrs. Kate Chatman.
Snyder	Kiowa	1,356	5	81.3	.....	101	25†	62	9	31	3.32	.....	1.28	0	5	21	9	1	s.	Dr. W. C. Woodard.
Stillwater	Payne	880	19	80.5	0.0	102	26	59	4	37	2.79	− 0.62	1.25	0	8	22	8	1	s.	Will P. Watson.
Tulsa	Tulsa	700	23	81.7	.....	104	20†	58	5	35	1.04	− 1.89	0.84	0	4	28	7	1	s.	Dr. H. M. Hutchinson.
Vinita	Craig	698	8	79.9	.....	100	27†	58	5	29	1.92	.....	0.67	0	6	28	0	2	sw.	W. C. Chamberlain.
Wagoner	Wagoner	588	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Moro Hatfield.
Waukomis	Garfield	1,258	15	81.7	0.0	107	20	59	5†	40	2.04	− 0.98	1.42	0	4	20	11	0	sw.	R. C. Shades.
Waurika	Jefferson	988	1	80.6	.....	99	2	62	5	29	7.41	.....	3.84	0	9	22	6	3	s.	B. A. Swindler.
Weatherford	Custer	1,639	10	80.1	− 1.4	106	27	58	9	40	2.68	+ 0.73	1.15	0	7	15	8	8	s.	Eugene Forbes.
Webbers Falls	Muskogee	479	13	81.0	− 0.2	105	28	58	5	35	8.15	+ 4.99	2.30	0	7	13	14	4	e.	B. D. Boulineau.
Whiteagle	Kay	945	8	81.2	.....	104	28	59	5†	37	1.71	.....	0.49	0	5	27	2	2	sw.	John F. De Jarnette.
Woodward	Woodward	1,893	9	80.2	.....	104	26	55	9	38	2.90	.....	1.50	0	5	25	5	1	s.	R. A. Boyle.
Wyandotte	Ottawa	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.73	.....	1.05	0	4	15	7	9	s.	Henry Hicks.
Missouri.																				
Belle	Maries	.....	20	75.6[e]	− 1.5	98	27†	50	12	32	5.05	+ 1.49	1.75	0	8	8[f]	14[f]	3[f]	s.	A. J. Woffard.
Birchtree	Shannon	1,200	20	75.3	− 0.6	95	27†	50	4	30	3.54	− 0.66	0.99	0	7	21[a]	9[a]	0[a]	sw.	V. H. Kirkendall.
Cardwell	Dunklin	.....	2	78.4	.....	97	20	52	4†	37	3.02	.....	1.00	0	7	26	5	0	s.	E. M. Perry.
Caruthersville	Pemiscot	.....	22	79.7	+ 0.9	100	20	55	4	30	5.29	+ 2.29	1.55	0	8	18	8	5	w.	Harvey E. Averill.
Cassville	Barry	.....	2	75.4	.....	99	27	47	5	42	2.25	.....	1.23	0	5	27	3	1	s.	Mrs. Zuma Bloomer.
Dean	McDonald	.....	14	76.8	− 1.2	100	27	50	5	40	1.80	− 2.45	1.00	0	5	26	1	4	.....	H. E. Dean.
Doniphan	Ripley	440	9	76.8	.....	96	28	49	5	32	3.91	.....	1.60	0	5	20	6	5	sw.	W. W. Martin.
Gano	Dent	.....	9	76.3	.....	97	29	47	3	32	5.29	.....	2.10	0	7	16	11	4	s.	A. C. Leech.
Goodland	Iron	900	8	73.2	.....	96	29	44	3†	35	3.24	.....	0.82	0	9	16	11	4	s.	F. M. Adams.
Hollister	Taney	1,000	3	76.9	.....	100	26†	54	5	30	1.80	.....	0.60	0	5	21	1	9	sw.	W. P. Chapman.
Ironton	Iron	925	35	74.4	+ 0.1	97	29	43	4†	36	3.01	− 0.42	1.25	0	10	11	12	8	s.	W. H. Delano.
Jackson	Cape Girardeau	458	22	76.4	+ 0.6	99	28†	49	5	36	3.11	+ 0.05	0.70	0	11	8	15	8	s.	L. M. Bean.
Joplin	Jasper	979	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Joplin High School.
Koshkonong	Oregon	911	13	77.6	+ 0.7	96	27	51	4	31	4.29	+ 0.73	1.46	0	9	15	10	6	sw.	J. W. Hitt.
Lamar	Barton	964	32	79.2	+ 2.0	99	19	54	4	36	2.22	− 1.91	1.76	0	7	23	2	6	sw.	E. H. Adams.
Marble Hill	Bollinger	420	20	75.4	− 1.4	97	29†	47	5	37	3.99	+ 1.09	1.60	0	8	16	14	1	w.	A. F. Hendrix.
Mountaingrove	Wright	1,490	14	75.4	+ 0.5	95	27†	48	4	29	3.23	− 0.78	1.94	0	6	19	5	7	se.	Mo. Fruit Exp. Sta.
Mount Vernon	Lawrence	1,480	36	77.2	− 0.4	97	27	54	4†	38	4.09	− 0.01	2.52	0	3	21	6	4	sw.	J. R. White & Son.
Neosho	Newton	1,023	30	77.2	+ 0.3	99	20	51	4	36	2.62	− 1.33	1.92	0	5	24	4	3	s.	W. O. Buck.
New Madrid	New Madrid	285	19	.....	.....	.....	.....	.....	.....	.....	5.32	+ 1.82	2.30	0	6	19	2	10	se.	Miss Josie Smith.
Oakfield	Franklin	793	21	76.2	− 0.8	98	28	51	4	30	3.60	+ 0.36	1.46	0	13	7	19	5	w.	E. E. Steines.

TABLE 1.—*Climatological data for August, 1912. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Missouri—Continued.																			
Olden	Howell	1,246	23	76.3	+ 0.1	98	28	49	4	33	1.40	− 1.77	0.64	0	5	18	12	1	sw.	J. D. Evans.
Rolla	Phelps	1,139	31	75.4	+ 0.4	94	19†	53	5	30	7.05	+ 3.33	1.68	0	15	17	8	6	sw.	Prof. P. J. Wilkins.
Springfield	Greene	1,350	25	76.3	+ 1.5	94	28	53	4	23	3.00	− 1.31	1.88	0	5	23	2	6	s.	U. S. Weather Bureau.
Kentucky.																				
Blandville	Ballard	445	31	75.7	− 1.1	92	20†	53	5	28	2.21	− 0.81	0.52	0	11	11	17	3	sw.	E. W. Horr.
Tennessee.																				
Arlington	Shelby		30	77.2	− 0.7	95	20†	56	4†	28	5.37	+ 2.17	1.65	0	9	13	7	11	s.	A. Thomas B. Etheridge.
Bolivar	Hardeman	450	25	77.4	− 0.6	93	19†	51	5	32	5.85	+ 3.29	2.00	0	10	19	1	11	s.	Miss Mary A. Smith.
Brownsville	Haywood	361	27	78.4	− 0.3	94	2†	52	5	36	4.96	+ 2.09	2.28	0	8	16	11	4	sw.	Miss Hattie N. Moses.
Covington	Tipton	311	25	77.4	+ 1.1	92	30†	53	5	29	5.89	+ 2.67	2.40	0	9	23	0	8	s.	James S. Ruffin.
Dyersburg	Dyer	310	29	78.6	0.0	95	14†	55	4†	28	4.77	+ 1.65	1.25	0	6	21	1	9	se.	Miss Martha A. Sinclair.
Jackson	Madison	450	19	78.0	− 0.8	97	20†	49	5	39	1.81	− 0.87	0.60	0	5	17	12	2	n.	Shelby A. Robert.
Kenton	Obion	325	10	75.4[m]	− 2.8	97[m]	....	49	5	32[m]	2.79	+ 0.14	1.31	0	7	....	....	....	.....	George S. Martin.
Memphis	Shelby	409	41	78.6	− 0.6	92	20	58	4	23	3.41	+ 0.21	1.10	0	9	14	8	9	sw.	U. S. Weather Bureau.
Milan	Gibson	440	29	76.3	− 1.5	93	20†	53	5	31	2.52	− 0.95	0.60	0	9	11	5	15	s.	Orlando F. Cantwell.
Trenton	do.	345	29	76.7	− 0.6	95	31	50	5	35	3.61	+ 0.59	1.02	0	9	22	7	2	sw.	F. L. Dennison.
Union City	Obion	360	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. B. Kimzey.
Arkansas.																				
Alicia	Lawrence	.....	8	78.2	.....	100	28	54	4†	31	2.32	.....	1.45	0	5	24	7	0	s.	McCullough & Guelck.
Amity	Clark	250	20	79.6	− 0.1	98	21	56	5	28	5.47	+ 1.13	2.90	0	7	14	15	2	w.	J. W. Campbell.
Arkadelphia (near)	do.	250	5	79.0	.....	95	18†	58	6	27	6.72	.....	2.32	0	8	20	4	7	sw.	J. A. Ross.
Arkansas City	Desha	145	29	.....	.....	.....	.....	.....	.....	.....	3.08	− 0.07	1.00	0	7	.....	.....	.....	.....	W. C. Blundell.
Batesville	Independence	271	7	.....	.....	.....	.....	.....	.....	.....	1.31	.....	0.63	0	5	.....	.....	.....	.....	Lelia I. Teter.
Bee Branch	Van Buren	.....	20	79.6	+ 0.7	105	27	52	5	41	1.80	− 1.29	0.70	0	4	16	10	5	.....	J. E. Scanlan.
Benton	Saline	283	5	79.7	.....	99[a]	20	51[a]	5	31[a]	3.92	.....	1.80	0	5	.....	.....	.....	.....	P. B. Jackson.
Bentonville	Benton	1,303	7	76.8	+ 0.3	97	27	54	4	31	2.61	− 1.43	0.97	0	7	25	5	1	s.	U. S. Weather Bureau.
Bergman	Boone	1,324	15	73.2	− 2.1	100	20	45	4†	46	1.87	− 1.37	0.60	0	5	21	8	2	sw.	John T. Maxey.
Black Rock	Lawrence	259	8	.....	.....	.....	.....	.....	.....	.....	2.14	.....	0.82	0	6	.....	.....	.....	.....	S. J. Howe.
Brinkley	Monroe	226	26	80.2	+ 0.9	98	18†	52	5	34	5.02	+ 2.40	1.32	0	7	.....	.....	.....	.....	H. L. D. Whitson.
Calico Rock	Izard	361	8	.....	.....	.....	.....	.....	.....	.....	1.70	.....	0.70	0	5	.....	.....	.....	.....	W. H. Stoner.
Camden	Ouachita	158	27	79.0	− 1.2	95	20†	55	5	29	6.36	+ 4.24	3.12	0	11	15	7	9	sw.	R. K. Quarterman.
Centerpoint	Howard	470	12	80.3	− 2.2	96	20†	61	5	26	4.90	+ 2.74	2.25	0	5	13	13	5	se.	J. M. Huddleston.
Clarendon	Monroe	171	8	.....	.....	.....	.....	.....	.....	.....	5.41	.....	1.84	0	8	.....	.....	.....	.....	Mrs. B. E. Bishop.
Conway	Faulkner	309	29	78.7	− 0.5	99	20	54	5†	35	2.21	− 1.04	1.24	0	10	21	4	6	s.	G. H. Burr.
Corning	Clay	293	20	78.0	− 0.2	95	28†	50	5	31	3.54	− 0.23	1.00	0	9	15	7	9	s.	Jacob Brobst.
Dardanelle	Yell	330	26	78.2	.....	97	19†	52	5	34	2.24	− 1.03	0.78	0	6	.....	.....	.....	.....	A. Bernard.
Dodd City	Marion	1,175	31	77.0	− 0.9	99[a]	27†	49[a]	4	33[a]	0.93	− 3.04	0.37	0	5	.....	.....	.....	s.	Neal Dodd.
Dumas	Desha	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.41	.....	1.51	0	7	10	20	1	.....	Lawrence Waterman.
Dutton	Madison	.....	10	75.4	.....	102	28	46	5	42	1.85	.....	0.79	0	6	15	11	5	s.	J. M. Ricketts.
Eldorado	Union	265	8	79.4	.....	96	20	56	5	29	4.85	.....	1.79	0	8	.....	.....	.....	.....	Jeff J. Babb.
England	Lonoke	.....	6	79.4	.....	96[a]	20†	58	4	32[a]	6.07	.....	2.95	0	5	15	8	8	.....	J. C. Chenault.
Eureka Springs	Carroll	1,465	10	78.4	+ 0.8	103	27	51	5	34	2.69	− 1.92	1.24	0	6	15	13	3	sw.	George W. Nichoalds.
Fayetteville	Washington	1,451	23	77.2	+ 0.9	101	27	54	5	32	2.10	− 2.30	1.05	0	5	6	22	3	sw.	University of Arkansas.
Fordyce	Dallas	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.81	.....	3.02	0	6	.....	.....	.....	.....	A. T. Fredick.
Fort Smith	Sebastian	481	30	80.4	+ 1.0	101	28	60	5	30	2.76	− 0.90	1.00	0	8	16	12	3	e.	U. S. Weather Bureau.
Fraziers Turnpike	Pulaski	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. E. Brown.
Fulton	Hempstead	264	8	.....	.....	.....	.....	.....	.....	.....	4.82	.....	2.00	0	5	.....	.....	.....	.....	B. C. Logan.
Hardy	Sharp	643	14	79.2	+ 0.3	101	28	50	5	34	1.58	− 1.90	1.02	0	6	2	20	9	sw.	C. A. Caywood
Helena	Phillips	182	27	80.8	+ 0.4	102	21	60	5	30	4.60	+ 1.03	1.07	0	7	.....	.....	.....	.....	B. F. Modisett.
Hot Springs	Garland	600	20	80.6	+ 1.3	98[d]	27	59	5	30[d]	2.94	− 0.25	1.20	0	7	17	8	6	sw.	Army and Navy Gen. Hosp.
Huttig	Union	85	5	80.2	.....	97[a]	20	57[a]	5	30[a]	5.19	.....	1.70	0	8	5	25	1	.....	C. A. Berry.
Jonesboro	Craighead	345	17	79.7	+ 0.1	99	28	53	5	33	3.79	+ 0.03	1.85	0	5	14	14	3	s.	Benedictine Sisters.
Junction	Union	.....	19	80.4	− 0.1	97	20†	67	1†	26	3.24	+ 0.56	1.12	0	6	20	5	6	sw.	J. A. Lowderback.
Lake Farm	Jefferson	195	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. H. Gillispie.
Lewisville	Lafayette	262	9	80.8	.....	100	20†	59	5	28	3.56	.....	1.33	0	7	20	9	2	.....	F. W Youmans.
Little Rock	Pulaski	357	34	79.0	− 0.2	94	21	58	5	26	4.98	+ 1.33	1.48	0	11	15	7	9	sw.	U. S. Weather Bureau.
Lutherville	Johnson	775	15	77.6	− 0.8	99	26†	53	5	40	2.30	− 1.75	0.91	0	9	10	19	2	sw.	W. R. Hentschel.
Malvern	Hot Springs	277	25	79.9	+ 0.4	99	20	57	5	29	3.92	+ 0.90	1.85	0	6	.....	.....	.....	.....	Miss L. C. Smith.
Mammoth Spring	Fulton	512	8	77.5	.....	100[a]	27	48[a]	4†	34[a]	1.32	.....	0.56	0	7	14	16	1	.....	F. Wallick.
Mena	Polk	1,100	26	77.4	− 2.1	97	27	58	5	32	4.51	+ 0.37	1.59	0	8	23	5	3	nw.	R. R. St. John.
Newport	Jackson	231	28	79.4	+ 0.2	98	19†	54	5	32	4.44	+ 1.36	2.00	0	8	.....	.....	.....	.....	Chas. Sprigg.
Pine Bluff	Jefferson	215	24	79.9	− 1.5	98	20†	57	5	31	3.28	+ 0.69	1.60	0	7	.....	.....	.....	.....	J. M. Hudson.
Pocahontas	Randolph	.....	20	79.4	+ 0.6	98	20†	55	4†	38	1.84	− 2.38	0.56	0	6	18	11	2	.....	Benedictine Sisters.
Pond	Benton	1,250	15	76.6	− 0.6	97	27†	54	4†	34	2.67	− 1.07	1.15	0	5	8	21	2	sw.	A. F. Stevens.
Portland	Ashley	122	3	79.6	.....	97	18	57	5	33	1.36	.....	1.11	0	3	.....	.....	.....	.....	T. A. Corson.
Prescott	Nevada	327	24	79.0	− 2.2	97	21	55	5	30	3.60	+ 0.77	0.90	0	11	.....	.....	.....	.....	A. M. Ellsworth.
Rogers	Benton	1,385	21	76.6	− 1.3	98	27†	53	5	31	2.75	− 0.84	1.71	0	6	17	8	6	s.	Carl A. Stark.
Springbank	Miller	182	4	.....	.....	.....	.....	.....	.....	.....	3.34	.....	1.10	0	8	.....	.....	.....	.....	G. Field.
Stuttgart	Arkansas	495	25	79.6	+ 0.2	98	20	51	5	34	5.26	+ 1.88	2.20	0	7	13	15	3	sw.	H. A. Buerkle.
Subiaco	Logan	1,050	15	79.6	− 1.5	101	27†	56	5	35	1.65	− 2.26	0.49	0	6	15	5	11	sw.	New Subiaco Abbey.
Swain	Newton	2,300	1	71.6[l]	.....	93[l]	27	52[l]	4	26[l]	3.58	.....	0.88	0	10	.....	.....	.....	.....	George Paxton.
Texarkana	Miller	332	28	80.2	− 1.5	100	21	60	5	31	4.91	+ 2.79	2.40	0	11	.....	.....	.....	.....	D. E. Moore.
Warren	Bradley	304	17	80.4	− 1.3	100	21	53	5	37	2.75	− 0.23	1.50	0	6	.....	.....	.....	.....	W. J. Savage.
Whitecliffs	Little River	206	8	.....	.....	.....	.....	.....	.....	.....	10.24	.....	2.85	0	11	.....	.....	.....	.....	John E. Payton.
Wiggs	Garland	.....	19	77.4	− 3.8	98	27	50	5	36	2.94	− 1.00	0.69	0	7	9	19	3	.....	S. D. Jester.
Wynne	Cross	250	4	79.7	.....	97	19†	53	5	31	2.45	.....	0.81	0	8	.....	.....	.....	.....	John Seals.
Mississippi.																				
Anguilla	Sharkey	107	4	79.6	.....	95	1	56	5	30	6.61	.....	2.00	0	7	13	11	7	sw.	E. W. Cook.
Austin	Tunica	200	16	78.9	− 0.6	97	19†	54	5	30	7.02	+ 3.11	2.81	0	6	22	5	4	sw.	H. J. Irvine.
Batesville	Panola	230	25	79.6	+ 0.4	98	31	53	5	32	7.96	+ 4.71	3.50	0	9	20	2	9	w.	J. M. Cox.
Big Creek	Calhoun	.....	2	78.9[e]	.....	96	28	57	5	29	4.52	.....	1.53	0	7	.....	.....	.....	s.	J. P. Havens.
Canton	Madison	228	22	80.2	− 0.2	95	2†	58	5	29	6.49	+ 2.92	2.08	0	14	4	21	6	.....	Dr. G. W. Smith-Vaniz.
Charleston	Tallahatchie	.....	2	81.4	.....	101	19	56	5	38	2.97	.....	1.15	0	3	23	5	3	.....	W. B. Burke.
Clarksdale	Coahoma	177	5	79.0	.....	96	19	55	5	29	5.37	.....	1.63	0	10	12	4	15	s.	A. C. Tuttle.
Cleveland	Bolivar	160	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. W. Boone.
Coffeeville	Yalobusha	241	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. K. Bailey.
Corinth	Alcorn	470	24	78.6	+ 0.2	96	20	54	5	30	5.21	+ 1.62	1.48	0	10	16	5	10	s.	M. A. Candler.
Crenshaw	Panola	187	3	.....	.....	.....	.....	.....	.....	.....	4.41	.....	1.49	0	7	.....	.....	.....	.....	Mrs. A. L. Fitzgerald.
Duck Hill	Montgomery	.....	13	78.7[b]	− 1.2	97	....	53	5	31[b]	1.88	− 1.33	1.15	0	3	.....	.....	.....	sw.	W. H. Eskridge.
Edwards	Hinds	222	25	80.6	− 1.0	95	18†	57	5	28	6.48	+ 2.47	1.70	0	12	20	11	0	se.	E. F. Farr.
Fayette	Jefferson	270	11	79.4	− 0.5	95	17	56	5	28	3.62	− 1.46	1.19	0	11	11	19	1	sw.	T. L. Darden.
Greenville	Washington	126	25	81.5	+ 0.2	98	20†	59	5	29	1.95	− 1.80	0.76	0	7	18	2	11	sw.	F. L. Harbison.

TABLE 1.—*Climatological data for August, 1912. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Mississippi—Contd.																			
Greenwood	Leflore	140	12	80.6	− 0.2	99	18	55	5	31	3.36	− 0.16	1.29	0	7	18	3	10	sw.	J. H. Stephen.
Grenada	Grenada	194	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. A. Jones.
Hernando	De Soto	391	24	79.2	− 0.4	96	31	54	5	31	5.95	.....	2.07	0	8	19	2	10	s.	W. F. Wood.
Hickory Flat	Benton	435	3	.....	.....	.....	.....	.....	.....	.....	7.15	.....	.....	0	.....	.....	.....	.....	.....	H. Powell.
Holly Springs	Marshall	600	25	77.9	− 1.4	92	2†	56	5	27	7.52	+ 3.80	2.12	0	13	17	5	9	sw.	L. B. Mosby.
Kosciusko	Attala	430	22	79.2	− 0.2	95	20	57	5	29	6.44	+ 2.55	1.15	0	14	17	9	5	s.	E. L. Lucas.
Malone	Marshall	.....	3	.....	.....	.....	.....	.....	.....	.....	7.22	.....	2.49	0	8	.....	.....	.....	.....	M. J. Wilkins.
Natchez	Adams	206	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Garrity.
New Albany	Union	398	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Marshall.
Pontotoc	Pontotoc	475	23	78.4	− 0.3	93	31	55	5	25	2.67	− 0.97	1.27	0	5	10	21	0	sw.	Dr. C. W. Bolton.
Port Gibson	Claiborne	116	24	80.3	− 0.6	95	20†	55	5	31	2.42	− 1.36	1.45	0	9	11	6	14	e.	H. H. Crisler.
Rosedale	Bolivar	143	4	79.1	.....	96	18	57	5	28	3.82	.....	1.70	0	8	13	5	13	sw.	T. J. Murray.
Senatobia	Tate	284	3	.....	.....	.....	.....	.....	.....	.....	4.69	.....	1.85	0	6	25	0	6	s.	C. Brickell.
Shoccoe	Madison	.....	9	78.6	.....	95	17†	55	5	31	6.92	+ 2.05	1.70	0	14	19	7	5	sw.	J. C. Pitchford.
Suffolk	Franklin	.....	11	80.0	− 1.0	95	23	59	5	27	9.13	+ 4.64	2.32	0	13	13	12	6	sw.	Prof. G. H. Kent.
Swan Lake	Tallahatchie	148	7	.....	.....	.....	.....	.....	.....	.....	1.62	.....	0.60	0	3	21	5	2	ne.	W. J. Hawkins.
Tchula	Holmes	130	7	81.0	.....	95	19†	55	5	29	6.23	.....	1.78	0	11	.....	.....	.....	s.	Dr. M. P. Winkler.
University	Lafayette	502	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. J. H. Dorroh.
Utica	Hinds	287	8	80.7	.....	96	17†	57	5†	31[a]	6.86	.....	1.42	0	11	.....	.....	.....	.....	Dr. J. B. Dudley.
Vicksburg	Warren	247	41	79.8	+ 0.2	92	20	60	5	24	4.81	+ 1.28	1.19	0	12	10	12	9	se.	U. S. Weather Bureau.
Water Valley	Yalobusha	300	23	79.1	− 1.0	98	27	55	5	30	4.73	+ 1.38	2.00	0	7	14	9	8	sw.	Miss Loule Erikson.
Woodville	Wilkinson	560	19	80.0	− 1.2	94	18†	61	5	25	3.67	− 1.89	1.38	0	13	12	18	1	se.	James E. Lee.
Yazoo City	Yazoo	116	18	80.1	− 0.7	95	2†	54	5	31	6.89	+ 2.43	3.47	0	9	18	0	13	se.	W. H. Courts.
Louisiana.																				
Abbeville	Vermilion	18	24	81.3	− 0.3	95	23	66	5†	26	5.39	− 0.28	1.26	0	18	6	13	12	se.	C. J. Edwards.
Alexandria	Rapides	77	24	81.8	− 0.2	99	21	60	5†	35	7.08	+ 2.96	2.00	0	8	15	6	10	s.	Nellie Graham.
Amite	Tangipahoa	130	24	80.6	− 0.7	95	19†	63	5	25	7.65	+ 1.02	1.50	0	10	1	29	1	n.	Lula M. Wentz.
Antioch	Claiborne	.....	...	81.1	.....	99	20†	55	5	30[a]	5.03	.....	1.45	0	7	20	0	11	s.	W. L. Anglin.
Avoca Island	St. Mary	.....	1	.....	.....	.....	.....	.....	.....	.....	3.73	.....	1.08	0	8	20	0	11	.....	J. N. Pharr & Sons (Ltd.).
Baton Rouge	East Baton Rouge	60	24	82.1	+ 0.8	98	23	63	5	28	5.21	− 0.59	1.02	0	16	16	6	9	se.	Elmo M. Bott.
Burnside	Ascension	20	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. S. McFarland.
Burrwood	Plaquemines	1	24	82.6	+ 0.3	92	21	70	14	16	6.96	− 1.28	1.93	0	13	21	6	4	sw.	Graham Meyers.
Cades	St. Martin	.....	2	81.9	.....	98	21	65	5†	27[b]	4.04	.....	1.50	0	12	14	15	2	s.	C. E. Smedes.
Calhoun	Ouachita	180	24	80.5	− 0.4	97	20	56	5	31	6.42	+ 3.14	3.48	0	5	14	14	3	s.	North Louisiana Exp. Sta.
Cameron	Cameron	6	19	78.1	− 3.8	92	27	59	6	29	5.26	+ 1.28	1.65	0	16	8	21	2	sw.	Adolph Bruckert.
Carrollton	Orleans	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Loyola College.
Cheneyville	Rapides	67	24	82.0	+ 0.6	98	20†	62	5	30	5.30	+ 1.38	1.80	0	11	16	1	14	s.	Walter I. Tanner.
Cinclare	West Baton Rouge	.....	2	82.0	.....	96	19†	66	5	26	6.08	.....	1.50	0	15	15	14	2	s.	Cinclare Central Factory.
Clinton	East Feliciana	113	24	79.4	− 0.8	91	18†	64	5†	24	5.20	− 0.90	0.80	0	17	18	2	11	n.	John A. White.
Collinston	Morehouse	65	11	81.6	− 1.3	100	19†	58	5	32	3.56	− 0.20	1.94	0	5	8	13	10	s.	John B. Reily.
Columbia	Caldwell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. W. Blanks.
Covington	St. Tammany	39	20	82.5	+ 0.9	98	17†	64	5	28	6.45	− 0.19	1.67	0	15	14	10	7	s.	Cecille P. Champagne.
Dodson	Winn	.....	3	81.2	.....	98	21†	59	5	32[a]	4.50	.....	2.05	0	8	10	15	6	sw.	J. P. Lucas.
Donaldsonville	Ascension	33	24	83.6	+ 2.1	98	20†	67	5†	28	13.50	+ 7.68	2.90	0	14	21	4	6	e.	John F. Park.
Dutchtown	....do	.....	1	.....	.....	.....	.....	.....	.....	.....	9.40	.....	3.00	0	13	9	21	1	.....	Picard & Geismar (Ltd.).
Farmerville	Union	177	24	78.4	− 2.4	93	22	58	4	27[c]	3.49	+ 0.27	1.20	0	6	15	9	7	s.	W. P. Chandler.
Ferriday	Concordia	.....	5	82.3	.....	93	21	66	5	18	4.52	.....	1.45	0	8	.....	.....	.....	.....	C. L. Achor.
Franklin	St. Mary	10	20	82.6	+ 0.3	98	21	67	6	27	4.97	− 2.57	1.16	0	17	12	14	5	s.	J. M. Bonney.
Franklinton	Washington	.....	2	81.3	.....	97	20	66	10	26	13.45	.....	5.75	0	15	.....	.....	.....	.....	Herbert R. Babington.
Grand Cane	De Soto	302	18	77.0	− 4.8	100	3	52	5†	37	4.21	+ 1.82	1.10	0	9	15	7	9	sw.	G. Foster Provost.
Grand Coteau	St. Landry	93	24	81.5	+ 0.2	97	20	63	5	28	8.72	+ 3.88	2.15	0	11	15	16	0	sw.	St. Charles College.
Gueydan	Vermilion	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	White Lake Land Co.
Hammond	Tangipahoa	44	20	81.5	+ 0.2	97	21	64	5	30	7.38	+ 1.53	1.80	0	11	15	15	1	se.	C. C. Carr.
Houma	Terrebonne	.....	24	81.4	− 0.2	94	10†	66	5	25	2.45	− 3.90	0.45	0	12	6	14	11	se.	J. M Foote.
Jena	La Salle	.....	1	82.2	.....	101	21†	60	5	33[b]	2 41	.....	0.76	0	7	17	13	1	sw.	C. E. Wilbanks.
Jennings	Calcasieu	30	15	81.7	− 0.5	98	20†	66	5†	28	12.71	+ 7.49	2.45	0	14	2	23	6	se.	J. F. Buch.
Laark	Morehouse	.....	.....	74.8	.....	100	23	51	5	43	5.21	.....	1.48	0	8	15	0	16	s.	P. M. Donley.
Lafayette	Lafayette	36	24	81.5	0.0	99	26	65	5	26	6.18	+ 0.73	2.00	0	15	20	3	8	e.	J. J. Davidson.
Lake Charles	Calcasieu	22	24	81.0	− 0.5	100	22	62	6	32	5.04	− 0.63	1.43	0	14	17	3	11	s.	George Boudreaux.
Lakeside	Cameron	9	10	81.2	− 1.5	96	12	67	13	24	7.21	+ 2.98	2.06	0	11	.....	.....	.....	w.	L. J. Nunemacher.
La Rose (near)	La Fourche	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	La. Delta Farms Co.
Lawrence	Plaquemines	6	21	83.6	+ 0.9	98	6	71	6†	23	4.10	− 2.82	1.30	0	10	16	8	7	s.	H. C. Warmoth.
Leesville	Vernon	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. M. McFarland.
Liberty Hill	Bienville	.....	24	82.0	− 0.7	104	21	60	5	32	6.17	+ 3.11	2.00	0	9	19	4	8	s.	E. A. Crawford.
Logansport	De Soto	192	8	.....	.....	.....	.....	.....	.....	.....	5.00	.....	1.81	0	7	21	2	8	s.	Bettie M Dennis.
Melville	St. Landry	45	24	83.7	+ 2.2	100	19	64	5	31	3.57	− 1.51	1.05	0	13	15	10	6	se.	Charles B. McNeill.
Merryville	Calcasieu	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Harry J. Chatterton.
Minden	Webster	194	24	79.6	− 2.5	97	21	61	6	31	7.53	+ 4.72	5.05	0	11	15	8	8	s.	Ethel Fort.
Monroe	Ouachita	82	24	80.6	− 1.5	96	18	59	5	29	5.27	+ 1.74	2.45	0	15	13	3	15	se.	Kathryn Key.
Morgan City	St. Mary	14	6	.....	.....	.....	.....	.....	.....	.....	2.90	.....	0.49	0	13	10	4	17	ne.	Virgil E. Kinsey.
Newellton	Tensas	.....	5	80.4	.....	99	1	59	5	32	1.06	.....	0.40	0	6	.....	.....	.....	.....	John D. Fultz.
New Iberia	Iberia	15	24	81.6	+ 0.3	93	11†	67	5	21	7.01	+ 0.84	2.05	0	16	5	16	10	se.	Mrs. John A. Gebert.
New Orleans (1)	Orleans	51	41	82.9	+ 1.9	94	23	72	5	20	4.93	− 0.68	1.64	0	15	1	20	10	s.	U. S. Weather Bureau.
New Orleans (2)	....do	18	24	82.6	+ 0.7	98	19†	68	5†	28	7.22	+ 1.31	2.06	0	14	0	6	25	s.	Sugar Experiment Sta.
Opelousas	St. Landry	83	20	79.8	− 2.1	94	23	63	5†	24	4.13	− 0.96	1.49	0	8	17	1	13	s.	Andrew Moresi.
Paradis	St. Charles	.....	1	.....	.....	.....	.....	.....	.....	.....	6.68	.....	1.64	0	12	.....	.....	.....	.....	R. E. Boyce.
Pearl River	St. Tammany	29	6	.....	.....	.....	.....	.....	.....	.....	4.28	.....	1.54	0	15	19	3	9	e.	George F. Bancks.
Plain Dealing	Bossier	268	20	81.2	− 0.2	97	3†	60	5	29	4.03	+ 1.03	1.74	0	8	13	6	12	se.	Leon Sanders.
Rayne	Acadia	44	20	81.6	− 0.4	98	23	66	5†	26	9.17	+ 3.72	1.80	0	15	18	2	11	e.	A. P. McNeil.
Reserve	St. John Baptist	.....	11	83.8	+ 2.0	102	21	67	5†	32	3.16	− 2.04	1.38	0	10	9	12	10	.....	Leon Godchaux Co. (Ltd.).
Richland Plantation	Rapides	.....	.....	79.8	.....	90	20†	64	5	21	5.46	.....	1.25	0	8	19	5	7	e.	A. B. Pendleton.
Robeline	Natchitoches	147	16	81.8	+ 0.4	100	18†	58	5†	33	1.05	− 2.37	0.50	0	4	19	2	10	sw.	Ruby McCook.
Ruston	Lincoln	312	17	82.7	+ 0.8	98	17†	58	4	37	5.08	+ 1.98	2.17	0	10	20	0	11	n.	Angor M. Larson.
St. Francisville	West Feliciana	115	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. W. Newman.
Schriever	Terrebonne	17	20	82.8	+ 0.7	99	23	61	6	34	7.80	+ 1.12	2.20	0	11	20	5	6	w.	W. H. Gautreaux.
Shreveport	Caddo	249	41	80.2	− 1.2	94	21	63	5	26	10.89	+ 8.65	6.47	0	9	16	8	7	se.	U. S. Weather Bureau.
Simmesport	Avoyelles	42	6	.....	.....	.....	.....	.....	.....	.....	7.12	.....	3.66	0	15	4	6	21	ne.	C. T. Leigh.
South University Farm	Jefferson	.....	15	.....	.....	.....	.....	.....	.....	.....	4.84	− 0.15	2.25	0	11	1	8	22	se.	F. L. St. Martin.
Sugartown	Calcasieu	.....	19	82.0	+ 0.5	93	1†	67	6	20	7.14	+ 2.06	2.45	0	7	5	26	0	.....	G. W. Richardson.
Tallulah	Madison	91	5	81.0	.....	98	2	59	5	32[b]	8.10	.....	2.63	0	8	.....	.....	.....	.....	Neal T. Halt.
Walker	Livingston	.....	2	80.5	.....	96	20	63	4	23	4.91	.....	1.10	0	12	11	19	1	ne.	H. C. Fondren.
Winnsboro	Franklin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. C. Carlton

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
* * * Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for* ***August****, 1912. District No. 7, Lower Mississippi Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Colorado.																																	
Buena Vista	Arkansas	.10												.05	.45	.35		.10			.50										.20		1.75
Calhan	Big Sandy																																
Canon City ‖	Arkansas	.56	.16		T.		.16	.02								.30	.34					.56							T.		T.	2.11
Colorado Springs	Fountain	.52		T.	T.	.09	T.		.03				T.	T.	T.	.05		.01			.11	T.						T.		T.	.15	.04	1.00
Cripple Creek	Oil Creek	.86		.24		.12		.03			T.		.14	.37	.14	T.		.08			.81	T.	.08					T	.04	T.	.12	.16	3.19
Cuchara Camps	Cucharas													.16	.74						.06	.04									.72		1.72
Eads	Big Sandy		T.						.20					.10	T.																		0.30
Fairview	St. Charles				.09		.12	.14			.10	.04			.17						.80	.75						.11		.06			2.38
Fremont Experiment Station. ‖	Fountain	.25				.18	.02	.08	.03				.01	.29	.02	T.					.18	.05								T.	.71		1.82
Garfield	Little Arkansas.	.15					T.						.05	.10	.75	.11	.05	.14			T.		.02						.05	.02			1.44
Hamps	Big Sandy	.25	.08		.02		T.		.04					T.		.48		.23			.05										.20	.15	1.50
Hermit Lake	Grape Creek	.05													.82	.10					.63								.10			.25	1.95
Hoehne (near)	Purgatoire			.07	.24							.07		T.	.27		.12					.14						T.	.14	.20			1.25
Holly	Arkansas			T.					T.					.15	.17	1.52					.20												2.13
La Junta	do																																
Lake Moraine	Fountain	.71		.09		.48	T.	T.	.10				.05	.21		.04	.03				.27	.17	.10							.60	.14	2.99
Lamar	Arkansas							.25					.54		2.05	.70																	3.54
Las Animas	do																																
La Veta Pass	Cucharas																																
Leadville	Arkansas	.20					T.		.02				.01	.10	.14	.22	.02	.05								T.	T.	T.	T.	.05	.02	T.	0.83
Limon (near)	Big Sandy	.25			.51				.06					T.	T.	1.24	.04	.06											.07			.31	2.54
Madrid	Purgatoire			.06	.03									.08	.29	.04	.01				.29							.19	.12	.14	.12	.01	1.38
Manitou	Arkansas																																
Marshall Pass	do															.20	.30	.40															0.90
Monument	Fountain					T.	.06		T.		T.			.02	T.	.67		.22			T.	.02									.16	.55	1.70
North Lake	Purgatoire											.03		.15	1.24	.04		.16												.03	.23	.07	1.95
Pueblo	Arkansas	.06		T.		T.	.08	T.					.13		T.	.46		.01			.67	T.	T.					T.		T.	.44		1.85
Rocky Ford (near)	do																																
St. Elmo	Chalk Creek	.30													.31	.33		.29										.03		.16	.10	.03	1.55
Salida ‖	Arkansas														.21	.23			.02			T.									.18	.03	0.67
Santa Clara	Huerfano	.06		.10	.09		.02	T.						.05	.91	.25		.02		.05	.26	.83	T.						.03	.14	.20		3.10
Sheridan Lake	Arkansas																																
Stonewall	Purgatoire	.13			.04	.16								.17	1.01		.10				.08	.58						.02	T.	T.	.14	2.43
Trinidad	do	.68	T.	.01	.02	T.	T.	.09			T.			.15	.38	.01	.06	T.			T.	.29						.14	.10	.05	T.		1.98
Two Buttes	Arkansas																																
Victor	Oil Creek	1.07		.08	.04			T.	.07				T.	T.	.04	.06	.14					.22								.02	.21	.30	2.25
Vilas	Cimmaron				.35			T.				.25	.18		.91																		1.69
Wayne	Arkansas	.20		.06			T.	.32					T.	.30	.47	.71					T.							T.			1.41		3.47
Westcliffe	Grape Creek													.35	.32						.40										.08		1.15
Winfield	Clear Creek	.09						.01							.33	.17	T.	.17	.01		T.					T.	T.	.01	.01	.01	.20	.02	1.03
Woodman Sanatorium.	Fountain	.35		.01		.01	T.	T.	.05		T.	T.	T.	.25	T.	T.	T.	T.			T.	.13								T.	.23	.20	1.23
Wortman	Arkansas						T.	T.	T.				T.	T.	T.	.10	.10	.10	T.					T.	T.	T.							0.30
New Mexico.																																	
Abbott	Canadian			.07										T.	.06	.17			T.	.70	.76		.04	T.					.06				1.86
Albert	do			.35	.12													.16											.11			.10	0.84
Aurora	do	.02			.09	.13							.05	2.51	.04		.11			.70	.02	.02								.28	.03		4.00
Bell Ranch	do	T.			.80	.05					T.			.44	.64	.89					32	.05							.07	.24			3.50
Black Lake	do			.01	.15										1.00			.33		.32	.45	.61							.06			2.93
Cabeza	do			.35		.10								.05	1.18	.15		T.	.15		.05	1.50								.38	T.		3.91
Campana	do	T.		T.	.16			T.			T.	.15		.45	.72			.17		T.	.30								.08				2.03
Chacon	do													.13	1.39	.12		.83		.15	.24	.34							.15	.25	.16		3.76
Cimarron (near)	do			.05	T.									T.	1.37	.04		.08		.09	.29		.07	T.						.18	.03		2.20
Clayton	do																																
Clovis	Red				4.05		.55									.25	.40	.30	.35	.16	.20												6.26
Cuervo	Canadian													.68	.38	.09	.15				.15											T.	1.45
Dawson	do				T.						T.			T.	1.00	.07				T.	.10			T.						.22		1.39
Elizabethtown	do				.45	.06							.06	T.	.26			.02	.06		.16	.30			T.			.04		T.	.47		1.88
Folsom	Dry Cimarron.	.08		.20	.46		.02	.67			T.	T.	T.	T.	1.10	T.		.34	.26	T.	.43									T.	T.		3.56
Fort Union	Canadian			.52	.12	T.								.05	.40		T.			1.00	1.70	.15		T.					.10	T.		4.04
Hayden	do			.72		.05	.03				.25	T.		.61	.12		.03	.03		.56		.05							.63	.05		T.	3.13
Hoosier Ranch	do	.20			.10		.04				T.		T.	.15	.55	.30			.10	.43			.20	T.					T.			.75	2.82
Johnsons Park	do		.10	.09	.09	.24		.08				T.		.09	.66	.06		.18			.04	.03	T.										1.66
Johnsons Ranch	do				.52									.10	1.06	.12					.30	.22							.28			.30	2.90
Kappus	do																																
Lake Alice	do																																
Logan	do				1.11									T.	.63	.36		.18			.12	1.81											4.21
Lykins (near)	Red						.08								.21	1.38		.45										55					2.67
Maxwell (near)	Canadian														.19	.45		.36		.43	.20		.06						.22	.26		2.17
Melrose	Red						.02								.60	.33	.32	.41			.03												1.71
Miami Ranch	Canadian				23									.50	.08	.22		.30		.16	.38	.15		.09					.03				2.14
Mills (near)	do	.06		.05	.10	.07								.06	.60	.49			.12		.54	.73	.02	T.					.03	.05		T.	2.92
Montoya	do					.20								.62	.46	.12	T.	.31			.40	.04						.35					2.50
Mt. Dora (near)	do	.88		*	*			*	*					*	2.00			.25			.22												3.35
Nara Visa	do																																
Optimo	do																																
Palo Verde	do	.04		.34	.02	.07								.04	.47	.33				T.	.60	.22	.12	T.					.56			T.	2.81
Pasamonte	do						.32							.35	.39	.30				.59													1.95
Pleasant View	do			.67		.12								.10	.95	.12				.39	.24								.15			.22	2.96
Portales	Red	.19		.07	.06	1.10							.49		.31			.33	.60		.07	.16							.26		.02		3.66
Raton	Canadian			.03	.07		.40	.04							.17	.41			.18	.17										.33	.13		1.93
Rociada	do				.12									.20	1.00	.70				.03			.20								.30		2.55
Rosebud	do			.10									.34		.98	.18		.09			.54												2.23
Roy	do		.08	.18	.10	.04	T.	.10						.19	.43			T.		.72	.26		.60						.70			.10	3.50
Roy (near)	do			.12	.06	.03								.02	.43			.10	.65		.35		.60					40			.45	3.27
San Jon	do	T.	T.	T.	.31	T.	.20	T.			.06	T.	T.		.54	.19	T.	.25	.10			.68									T.	2.33
Solano	do	.09		.90	.12	.06								.10	.40	.24		.28			.50	.22									.05	.30	3.26
Springer	do			.10										.40				.15	.22		.20	.30					.10		.10	.20			1.77
Taylor	do															1.50	.20		1.00			.20	.15	.20			.10						3.35
Trementina	do																																
Tucumcari	do	.02		.71									T.	.15	1.19	.11	.22	.04		.02	*	1.28											3.74
Valley	Dry Cimarron.	.04	.05	1.10	1.20	.01		.04							.90	*	1.00			T.	.15							T.						4.49
Vance (near)	Canadian	.89		.10	.59			.31	.04					.01	.67	.43			.09		.33								*	.10			3.56
Vermejo Park	do		T.	1.10	.25								T.	.03	.12	.06	.14			.41		.79	.12	.05		.07	.06	T.	.15	.10	.77		4.22
Wagon Mound (near)	do			.40	.02	T.								.01	.64	.10				.28	1.32	.18							.06				3.01

TABLE 2.—*Daily precipitation for August, 1912. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Texas.																																	
Amarillo	Canadian	.07		.45	.75	.15	T.	.42	T.	T.	.40					T.					T.	.04										2.28
Archer City	Red	1.63		T.	.02	.24	.73	.37		.04													.11				.01					3.15
Arthur City ‖	do					.10	.16		1.10	.40													1.50									3.26
Bonham	do	.24	.38			.65	.36	.72	.68		.36												T.									3.39
Canadian	Canadian																															
Childress	Red			2.20	.10	1.90																				.79						3.99
Chillicothe	do			.23	1.39	.43		1.24												.11						.43						3.83
Clarendon ‖	do				1.00	.32		.90	.06										.24	.03												2.55
Clarkesville	do					.60	.10		.55	.52												.60					.10					2.47
Claude	do			1.25	1.00			.60																							.35	3.20
Dalhart ‖	Canadian	.70		.07	.61	.12		.65							T.	.35			.10		.11	.63										3.34
Denison ‖	Red		1.20				.90	.45	1.10	1.70													1.10			.05						6.50
Finley ‖	do							2.00	T.	1.00	T.					.70							.65	T.								4.35
Henrietta ‖	do		.05	.05		.70	1.50	.65	.17	.45	.10																27					3.94
Hereford	do																															
Memphis	do			1.93	.98			1.00	.43																							4.34
Miami	Canadian	.07			.78	.55		.39	.27										.44			.17										2.67
Mobeetie	Red																															
Ochiltree	Canadian	.20			.22	.10		.44		.08					.12			.47														1.63
Panhandle	do				1.00	.50		.35	.25																	.25			.25			2.60
Paris ‖	Red	1.53	T.	.30		.16	.38	.08	.20	1.80	T.												.86	.01		T.	T.	1.29		.03	T.		6.61
Plemons	Canadian			.05	.27	1.02		.10	.31							T.	T.	.02	T.	.01	.33	.40										2.54
Quanah ‖	Red			.97	1.40	.24	.20	.24	.20	T.										.20							.37					3.82
Ringo Crossing ‖	do			.64			.34	.79		1.90																		1.00				4.67
Romero	Canadian			.37		.09		.15			.12	T.		T.	.08	.66	.27	.17			.10	1.00										3.01
Sherman ‖	Red		.04			.20	1.10	.30	.40	1.05													.10				T.					3.19
Stratford	Canadian	.62		.03	.20	.70		.03	.61																							2.19
Texline	do																															
Tulia	Red	T.	.26	.36	.81	T.	.12	.09	T.	T.	.51						T.	T.	.03		.04					T.	1.01	T.			T.	.74	3.97
Wellington	do																															
Wichita Falls	do																															
Winfield	do						70	1.15	T.		5.91	.55											T.		T.		.07					8.38
Kansas.																																
Alden	Arkansas		1.08				1.08	.47							.19	.60					.77								.42			4.61
Anthony	do	T.	.32		.01		.20	.62	.13					.02	1.50	T.					.22									.51		3.53
Ashland	Cimarron	.42	.11	T.				.12	1.58	T.					.18	.30					.08	.02							.06	.07		2.94
Burlington	Neosho					.05	.60		.10					1.00		.13					2.13											4.01
Chanute	do		.11			T.	T.		.19	T.					.94						2.20											3.44
Cimarron	Cimarron		.76			.08	.63	4.02							.96	2.04					1.35											9.84
Coffeyville	Verdigris																															
Coldwater	Cimarron	.20	.81		T.		T.	.34	1.18						2.79	.08				.08	.16								.31			5.95
Columbus	Neosho		.06						.31												.45	1.01										1.83
Coolidge	Arkansas								.13							1.42																1.55
Cottonwood Falls	Neosho	T.	.28			.11	1.18		.52						.68	.38					.18	1.06							.14			4.53
Council Grove	do		.20			.16	1.31		1.07					T.	.10	.37				.40	.06								T.			3.67
Cunningham	Arkansas	T.	.85		T.		.55		.65						.65			22			T.	.08								T.		3.00
Dodge City	do	.34	.61				.29	2.59	T.	T.					1.19	.47				.04	.27		T.									5.80
El Dorado	do		.38		T.	.30			.24						3.20	.36						.28										4.76
Ellinwood	do	T.	.58			.01	.34	.18	.36					.04	.17	.97	.15			.38	.22	.22							.88			4.50
Emporia ‖	Neosho			.14			.47	.11	.27						.85	.17						.73										2.74
Eureka	Verdigris		.25				.30		.16						.98	.04					.71	.14								T.		2.58
Fall River	do		.20				.04		.35						.10	2.15						.75	.02										3.61
Fargo	Cimarron	T.		T.			T.	1.70		.11					2.62	.47	.11	.09	T.	T.	.60											5.70
Fredonia	Verdigris		.17				.09		.11	.01						.13						.97	.01										1.49
Garden City	Arkansas	.53	.03	T.				.80	.15					.05	.35	1.90					.10											3.91
Great Bend ‖	do		.58				.42		.62							.40	.46				.60	.27								.70		4.05
Greensburg	do		1.10				.18	.18	.49						2.50	.65				T.	.30	.25										5.65
Grenola	Verdigris		.54				.12		.38						.10	.88						.81								T.		2.83
Hess	Cimarron																															
Howard	Verdigris		.37				.13		.36	T.					12	1.98						.77										3.73
Hugoton	Cimarron																															
Hutchinson	Arkansas		.69				.81		.22					T.	.22	.10					.20	.09								1.62		3.95
Independence	Verdigris		.44				T.		.10	T.											11	2.57	.02									3.24
Iola	Neosho		.02			T.	.10		.33					.03	1.80	1.03					.46		.01									3.78
Irene	Arkansas	.04						T.				.15	T.		.37	2.00					.09											2.65
Jetmore	do	T.	2.54			.15	.40	.20	.17					T.	.30	.75					.30	.03										4.84
Kingman	do	T.	1.07	.78			.25		.60					.03	.44	.06					T.	.10								1.41		T.	4.74
La Crosse	do		.97				.42	T.	.53							.44	T.			T.	.22											2.58
Lakin	do						.65		T.				.23	.30	.25	.65					.06											2.14
Larned	do		1.42			.01	1.12		.29						.17	.70	.40				.65	.02										4.78
Lebo	Neosho		.10			.22	.76		.10					.29	.23	.01					.67									T.		2.38
Le Roy ‖	do			.04				.50	.16	.04					.62	1.33						1.40										4.09
Liberal	Cimarron	.77	T.	T.	T.			1.15	1.70						1.70				.07		.73	.05										6.17
Macksville ‖	Arkansas		.85	.04			.78	.03	.98						1.10	2.70	.14				.15	.69			.03					.02		7.51
McPherson ‖	do			.56			.86		1.04						.08	2.24					.04	.27								.86		5.95
Madison	Verdigris		.16			T.	.60		.12						1.25	.08					T.	.87	T.							T.		3.08
Marion	Neosho	T.	.34			.11	.66		.46					.38	.88	.88					.80									T.		4.51
Medicine Lodge	Arkansas		.52				.30		.46					T.	3.16		T.				T.									.25		4.69
Medora ‖	do			.77			.66	.03	.22						.07	.36					.13	.31								1.40		3.95
Minneola	Cimarron	.28	.22					.28	1.45						1.07	.57					.36											4.23
Mount Hope	Arkansas		.64				.64		.18					.35	.28						.15											2.57
Neosho Rapids ‖	Neosho			.11			.55	.11	.18						.45	T.						.42								T.		1.82
Ness City	Arkansas		1.55				.19	.26						.08	T.	.69				T.	.30			.03							.16	3.26
Newton	do		.58			.22	.53		.12						.13	1.96					.48	.55								.54		5.11
Norwich	do		1.00		.07		.51		1.13						.50	.69						.33								.25		4.48
Oswego	Neosho		.17						.22							.01					.04	1.06										1.50
Plains	Cimarron	T.					1.50		.35						.60	1.25			.10	T	1.35	T.										5.15
Pratt	Arkansas		.85				.86		.25					.20	.70	.06					.03											2.95
Richfield	Cimarron	.16	.03			.01		.03	.01	.01				.45	.11	.27					.26											1.34
Rome	Arkansas		.93		.09		.25	.63	.88						5.50	.13						.32							.13			.03	8.89
Sedan ‖	Verdigris			.26				.10	.13	.05								.31				.68										1.53
Toronto	do			.22					.16						.35	.45						1.10									T.	2.28
Ulysses	Cimarron	.08					.60		T.		T.	T.		.20	.21	.55																1.64
Walnut	Neosho		T.						.22						T.	.07				.04	2.16											2.49
Wellington	Arkansas		1.25		.05		.24	.07	.77						1.25	.16						21								.09		4.09
Wichita	do	T.	.54		T.		.65	.04	.13					.49	.54	.12					.60	T.							.03				3.14
Winfield	do	T.	.61				.10	.60	.07						1.25							.52								T.			3.15
Yates Center	Verdigris	T.	.12				.44		.20						.42	.22					.04	1.01	T.										2.45

TABLE 2.—*Daily precipitation for* ***August****, 1912. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oklahoma.																																	
Ada	Canadian	.05			1.31	.06	.20	1.28	1.06	.32					.65												.18						5.11
Alva	Arkansas	.25	.56					.10	1.50					T.	.93						T.	.30											3.64
Apache	Red	.76		.05	.93	.78	.08	1.07	.67																	T.							4.34
Arapaho	Washita	.48			.04		.06	.82	.87													T.											2.27
Ardmore ‖	Red		.83			.55	1.60	1.30	.28	.56													.11				.05						5.28
Arnett	Canadian																																
Bartlesville	Arkansas		.10						.58						.08	.37						.20											1.33
Beaver	Canadian	.38						.89	.86						.40	.02				.01	T.												2.56
Blackburn	Arkansas		.17						.62													T.											0.79
Cache	Red	.53			1.81	.12	.10	1.20																		.25							4.01
Calvin	Canadian			.10			.04	.40	.95	.52		.04																					2.05
Chandler ‖	do																																
Chattanooga	Red	.37			1.76	.13	.02	.83																			.40						3.51
Chickasha	Washita																																
Cloud Chief	do	.75			.36	.05	T.	1.16	2.06																	T.							4.38
Crawford	Canadian	.50			.10			1.40	.34				.09																				2.43
Durant ‖	Red		.58			.75	.63	.70	.67	.43													1.00				.01	T.					4.77
Eldorado	do	T.		.34	1.67	.05		1.47	.04				T.							14						.12							3.83
Elk City	do																																
El Reno	Canadian	.18			.10			1.10	.09																								1.47
Enid ‖	Cimarron			.40			.48	.04	.94	.05						.30							.04										2.25
Erick	Red	.04		.08	.35	.02	T.	.93	.67					T.						T.						.12				T.			2.21
Eufaula	Canadian		.07	.28				.41	1.40	.37		T.														T.							2.53
Fairland	Arkansas		.61					T.	.55			.08			T.	.08						1.39											2.71
Fort Gibson	do	T.	T.	1.82					1.40	.49		T.	T.										.13										3.84
Frederick	Red		.26		1.16	.33		1.05																		T.	.15						2.95
Geary	Canadian	.23		T.	.55	.02	.02	.58	.71													.06				.06	.12						2.35
Goodwell	do	.62			1.07	.14	.14	.35							.10	.02	.67	T.		.10		.10											3.31
Guthrie	Cimarron					.15		.15	2.60													T.											2.90
Guymon	Canadian	.78		.10	.36	.15		.27							.89	.24	.07	.05	.10		.17	T.	.02	.06							T.	T.	3.26
Hartshorne	do	T.	.65					.73	.83	.37		.27					1.07																2.92
Healdton	Red	.07			.67	1.15	2.15	.78	T.	.53		T.											.31				.54						6.20
Helena	Cimarron	T.	.33		.05	.05			.95													.23											1.61
Hennessey	do	.09	.08			.30		1.83	.06																								2.36
Hobart	Red	.22		.24	1.26	.03	.02	1.29	.17	T.										T.						1.00	.07						4.30
Holdenville ‖	Canadian								1.50	.46						.83																	2.79
Hooker	do	.45		T.	.10		T.	.37	.55						T.		T.	T.			.72												2.19
Hurley	Cimarron																																
Idabel	Red		1.60			T.	.20	1.70														.25	.75			T.						4.50
Jefferson	Arkansas		1.08		.33		.31	T.	.40					.10	.90						.05								.05			3.22
Kenton	Cimarron	1.60		1.02	.30			.17	T.		T.			.53	.11	.40	.01	.05	.04	.03	.50			.54							T.	5.30
Kingfisher	do	.12			.01	.07	.08	.32	2.56	.13												.15											3.44
Lawton	Red				5.10	1.10		.10																			.20						6.50
McAlester	Canadian						.15	.64	.59	.74							.68																2.80
Mangum ‖	Red			.05	1.60	T.	.05	1.05	.10											.05													2.90
Marlow ‖	Washita		1.50		2.80	.13	1.29	1.07	.13	.02												T.	.10				.03						7.07
May	Canadian	1.03	.01			T.	T.	.69	.91					T.	.06	.08				T.		.71							.09				3.58
Meeker	do								3.55																								3.55
Muskogee	Arkansas		.75	.40					1.74	.30													T.										3.19
Mutual	Canadian	.44	.06					.25	1.25													.36											2.36
Neola	Washita	.37			.82	1.11	.04	1.13	.20																.02								3.69
Newkirk	Arkansas		.55				.25		1.09								.25					.30											2.44
Norman	Canadian																																
North Muskogee	Arkansas			.72					1.36	.53														.20									2.81
Oakwood	Canadian	.39	T.		T.	T.	T.	.49	1.30	T.												T.											2.18
Okeene	Cimarron	.24	.03			.01	.01	.15	2.78													.20											3.42
Okemah	Canadian		.34					.35	1.95	.25												.07											2.96
Oklahoma	do	.04		T.	.15	.09	.01	.72	2.60													T.											3.61
Okmulgee	do		.59			T.		.15	2.77							.15																	3.66
Pauls Valley	Washita	.42			1.02	.26	1.01	.91	.30	.28												.43											4.20
Pawhuska	Arkansas		1.07	.06					.93	.08					.05	.23	.04																2.89
Perry	do	T.	.71	T.		T.		.25	1.24						4.15							.06											6.41
Rankin	Red	.12		T.	.35	T.		.80	.38										.06							.40			T.				2.11
Ravia	Washita	1.59			.46	.87	1.16	.38	.17	.29																	.54						5.46
Sac and Fox Agency	Canadian																																
Shawnee ‖	do		T.	.33		.35	.01	.76	1.97	.49													T.											3.91
Snyder	Red	T.			1.28	.10	T.	.82	.02																	T.	.10						2.32
Stillwater ‖	Cimarron		.14			.08	.01	1.25	.09						1.10						.09	.03											2.79
Tulsa ‖	Arkansas			.04				T.	.60	.24		.16										T.											1.04
Vinita	do		.15					.55				.24	.18			.13						.67											1.92
Wagoner	do																																
Waukomis	Cimarron	T.	.55		T.	T.	T.	T.	1.42							.02						.05											2.04
Waurika	Red	.22			.83	3.84	.70	.86		.52		.05											.14				.25						7.41
Weatherford ‖	Canadian	.04	.23		T.		.06	1.15	1.00	.10												.10	T.			T.							2.68
Webbers Falls	Arkansas	2.30	1.30	2.20		.41		.15	2.00	.10		.10														T.							8.15
Whiteagle	do		.49				.41		.46							.25						.10											1.71
Woodward	Canadian	.59	.01					.29	1.50													.51											2.90
Wyandotte	Arkansas	.11							.48							.09						1.05											1.73
Missouri.																																	
Belle	Meramec				1.00			.20	.80	1.75			.15	.65		.12					.38				T.								5.05
Birchtree	Black							.33	.49	.99			.40		.33						.60	.40											3.54
Cardwell	Mississippi								.62	.31	.25		.60				.22							.02			1.00						3.02
Caruthersville	do			T.				T.	1.00	.75	.49	.06	1.55		T.	T.	.18				.22						1.04						5.29
Cassville	White								.52			T.			.10	.39						1.23							.01				2.25
Dean	Neosho		.11					.12	.50			.07										1.00											1.80
Doniphan	Black			T.				.20	.34				1.07			1.60					.70	T											3.91
Gano	Meramec		T.	.70			.08		.13	1.18					1.87	.23						1.10											5.29
Goodland	Black		.33					.26	.27	.22	.10	.05			.82		.48					.71											3.24
Hollister	White			.10				.25	.30						.55							.60											1.80
Ironton ‖	Mississippi			.20	.10			.17	T.	1.25	.15			.08	.70		T.					.25	.08				T.	.03	T.				3.01
Jackson	do		.32	.18			.04	.09	.37	.46			.70	.09		.70					.11	.05											3.11
Joplin	Neosho																																
Koshkonong	Black							.47	.59	.28	.64	.22			.19	1.46						.11		T.				.33					4.29
Lamar ‖	Neosho							.14	.16	.06	.02						.02	.06				1.76		T.									2.22
Marble Hill	Mississippi			.32					.22	.40			1.60		.44	.40					.50	.11											3.99
Mountaingrove	White						.32		.25	.15					.41	.16						1.94						T.					3.23
Mount Vernon	Neosho							T.	.33	1.24		T.										2.52											4.09
Neosho	do		.12					T.	.46	.02		.10				T.						1.92											2.62
New Madrid ‖	Mississippi			T.	T.				.50	.20	1.06			1.22	.04		2.30																5.32

TABLE 2.—*Daily precipitation for August, 1912. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Missouri—Contd.																																	
Oakfield	Meramec	T.	T.	.87		T.		.55	.08				.15	.50	.96	.02					.07	.29	T.			.04	.07			T.			3.60
Olden	White							.12	.46	.12												.64					.06					1.40
Rolla	Meramec			1.12			.05	.20	.57	1.67	.01	.02	.11	.11	1.30	.14	.02					1.65	.03				.05					7.05
Springfield	White		T.				.05	T.	.67	.40		T.			T.				T.		.50	1.38									3.00
Kentucky.																																	
Blandville	Ballard	T.	T.	.11					.24	.52	.07		.20		.35		.08	.01			.16	.03		.44								2.21
Tennessee.																																	
Arlington	Mississippi							.30	1.45	.38	.10			.45			.04	1.65					.60					.40					5.37
Bolivar	do	T.						T.	2.00	.66	.08			.19	.03	.07	.76	1.40					.12					.54					5.85
Brownsville	do							.39	2.28	.37	.10			.24			.20							26			1.12					4.96
Covington	do							.15	2.40	.60	.57			.03			1.43	.63					.03				.05					5.89
Dyersburg	do							T.	.82	.30	.85		1.25		T.			.35				T.		T.			1.20					4.77
Jackson	do			T.					.60	.50	.26		.35		T.											.10						1.81
Kenton	do							.04	1.31	.26	.50						.03				.41					.24						2.79
Memphis	do			.05			.01	.69	.42	.46			T.		.06	.21						.96	T.			.55						3.41
Milan	do				T.			.03	.25	.60	.42	.05		.47		T.	.56					T.		.08			.06					2.52
Trenton	do			T.				T.	.50	.39	.24	.02	.97		1.02	.35								.05		.07						3.61
Union City	do																																
Arkansas.																																	
Alicia	White							.15	1.45	.42	.10							.20															2.32
Amity	Ouachita			.45					.10	1.50		.20				.22						2.90					.10					5.47
Arkadelphia (near)	do	2.32	.15		.69			T.			.48				.43		.30						2.20				.15					6.72
Arkansas City	Mississippi							.10	.70	.70	.03		.15				.40											1.00				3.08
Batesville	White			T.	.04				.38	.63	.16						.10															1.31
Bee Branch	Arkansas			.30				.70	.30	.50																						1.80
Benton	Ouachita	.07						.20		1.80			T.								1.55								30			3.92
Bentonville	Arkansas		.77					.45	.53	.02		.13				.01						.70										2.61
Bergman	White	.52						.11	.48			.60										.16										1.87
Black Rock	do							.32	.52	.82				.09			.17		.22													2.14
Brinkley	do								1.32	.62	.26		.54			.86							1.26				.16					5.02
Calico Rock	do			T.					T.	.70	T.	T.	.10		T.	.60	.20	.10				T.										1.70
Camden	Ouachita	.55		.40				.01		3.12	.06		.49			.06	.31						.72	.30			.34					6.36
Centerpoint	Red		T.			T.	T.	T.	1.25			T.			.60							*	2.25	.80		T.						4.90
Clarendon	White							T.	.86	1.70		.24	.25				.20	.02					1.84				.30					5.41
Conway	Arkansas						.05	.12	.03	1.24		.21	.01		.05	.12	.04										34						2.21
Corning	White			.19				.03	.50	.51	.29		1.00		T.	T.	.92				.07	T.					.03					3.54
Dardanelle	Arkansas			.08					.16	.78							.32											.78	.12			2.24
Dodd City	White							.30	.37		.10					.08	T.					.08										0.93
Dumas	Arkansas								.01	1.50					.11	.36					.04		1.37				.02					3.41
Dutton	White		.31				T.	.24	.79			.30			.09	.12										T.						1.85
Eldorado	Ouachita	.66		T.	.26					1.79	.60		T.				T.						.56	.44	.06		.48			T.		4.85
England	Arkansas	T.		T.				T.	.90	2.95	.10		T.	T.	T.	T.	T.	T.					1.30	T.			.82					6.07
Eureka Springs	White		.10					.20	1.04			.12				.58						.65										2.69
Fayetteville	do		.42					.19	1.05	.34		.10																				2.10
Fordyce	Ouachita			.05						1.50				.02		.01					1.21					3.02						5.81
Fort Smith	Arkansas	T.	.71	.21		T.	.08	.26	1.00			.15				.34																2.76
Fraziers Turnpike	do																																
Fulton	Red	.12						T.		2.00						.10							2.00				.60					4.82
Hardy	White			T.				.03	.38	.10	.05	T.	T.		.70	.32						T.		T.				T.				1.58
Helena	Mississippi	.29							1.00	1.07	.34		.04									1.01						.85				4.60
Hot Springs	Ouachita							.12	.14	.86	.24					.16							1.20				.22					2.94
Huttig	do				.83			.02	1.20	1.70	.55												.64		.07		.18					5.19
Jonesboro	White								1.85	.45	.08		.41				1.00				T.						T.					3.79
Junction	Ouachita			.22				.42		1.12					.28								.59				.61			T.		3.24
Lake Farm	Arkansas																																
Lewisville	Red		.25	T.		T.	.03				.70	.05	.10				T.						1.33				1.10					3.56
Little Rock	Arkansas		T.	.02			.01	.51	.02	.50		.30		T.	.02	.31	.51					1.48					1.30					4.98
Lutherville	do		.15	.11			T.	.35	.56	.33		T.		.45		.28									T.		.06				.01	2.30
Malvern	Ouachita	.10		T.				.10	T.	1.85			.60										.80					.47				3.92
Mammoth Spring	White							.07	.40	.16		.16			.40	.12						.01										1.32
Mena	Ouachita			.23			.10	.23	1.59	.93		.20				.45							.78										4.51
Newport	White				.12				1.10	.60	.26				2.00	.06	.07											.23					4.44
Pine Bluff	do			T.				.03	.04	1.45	.02		.02										1.60		T.			.12					3.28
Pocahontas	do							.44		.56			.32			.10		.34	.08														1.84
Pond	Arkansas		1.15					.23	.42			.27				T.						.60											2.67
Portland	Ouachita								T.	1.11	.11		.14																				1.36
Prescott	do	.02		.80	.13			.10		.86	.05						.05						.90	.20	.39		.10						3.60
Rogers	Arkansas		.17					.08	1.63			.18				.20						.49											2.75
Springbank	Red	T.		T.	T.		T.	.06	T.	1.10	.40					T.	.61				*		.69	.16		T.	.01	.31			T.	T.	3.34
Stuttgart	Arkansas						T.	.02		2.20				.03		.20	.19						.97				1.65						5.26
Subiaco	do		.44	.12			T.	.18	.49	.21		T.				.21											T.						1.65
Swain	White		.31	.08		T.	T.	.23	.68	.38		.88			.40	.22												.12	.28				3.58
Texarkana	Red	T.		.22			.02	.08		2.40	.40					T.	.03	.07					1.38	.10			.18			.03		4.91
Warren	Ouachita	.13							.09	1.50								.45					.38	.20								2.75
Whitecliffs	Red	T.	.15				T.	.17	.85	2.85	T.				.90			1.50		.70	1.30		1.63					.18	.01				10.24
Wiggs	Ouachita		T.	.07		T.	T.	.04	.39	.60	T.	.56			T.	.69					T.		.59			T.	T.						2.94
Wynne	St. Francis			.03	.49			.10	.81	.45	.03												.19					.35					2.45
Mississippi.																																	
Anguilla	Yazoo			T.			T.		1.20	.35	1.40	.75	.06	T.	T.	.85		T.			T.						2.00			T.			6.61
Austin	do			1.92			T.	T.	1.29	2.81		.19				T.							.42				39						7.02
Batesville	do				.63				2.50	3.50	.05		.03				.60	.27					.12					.26					7.96
Big Creek	do			1.50			T.	.30	.35	.34	T.			.25	T.	T.			1.53		T.						.25						4.52
Canton	Big Black		.40	.11		.09	.16	.13	.58	.85	.40	.68		.16	.09			2.08									.65	.11					6.49
Charleston	Yazoo								1.15	1.12																	.70						2.97
Clarksdale	do	.06			T.				1.29	1.63	.04		.01		.21	.01	.40						.29					1.43					5.37
Cleveland	do																																
Coffeeville	do													1.07		.06	.82										.74						
Corinth	Mississippi							.18	1.48	1.34	.28		T.				.74	.10	.08	.01			.82					.18					5.21
Crenshaw	Yazoo			.03				1.49		1.49		.35				T.	.27				.03						.75						4.41
Duck Hill	do			.19					T.	.54	T.			T.				T.									1.15						1.88
Edwards	Big Black			T.	.05				.70	.25	.70	1.38		T.	.20	1.70			.45	.25						T.	.10	.60	.10		T.			6.48
Fayette	Mississippi		1.19					T.	.23	.24	.14		.13	.05					.11		.26					.26	.93			.08			3.62
Greenville	Yazoo							T.		.76	.04		.33		.05	.17	.15											.45					1.95
Greenwood	do				1.29			.17		.41	.14		1.09			T.							.06					.20					3.36

TABLE 2.—*Daily precipitation for August, 1912. District No. 7*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Mississippi—Contd.																																	
Grenada	Yazoo																																
Hernando ‖	do			.03				.05	1.00	2.07	.46						1.65						.37				.32					5.95
Hickory Flat	do																																7.15
Holly Springs ‖	do	.04			.04			.07	1.02	1.80	.22			.18	.05	.23	1.45						2.12	.01			.29					7.52
Kosciusko ‖	Big Black				.37			1.05	.90	.38	1.15	.15	.61	.15		.02			.05	.35			.12		.01		1.13					6.44
Malone	Yazoo			.51					2.49	2.03				.75		.69	.11						.43				.21					7.22
Natchez ‖	Mississippi	2.22		.15	2.27					.23	.30	0.28		T.																		5.45
New Albany	Yazoo																																
Pontotoc	do			.60				.77	.50										.45						.35		T.					2.67
Port Gibson ‖	Mississippi	T.			T.			T.	.03	.10	.35	.11	T.	.08	T.	.83	.62			T.				T.		.15	T.	.15			T.		2.42
Rosedale ‡‖	Yazoo				.04			.08	.50	1.70						.30	.20						.10				.90					3.82
Senatobia	do			.15				.07	1.85	1.37						T.								.80		.45						4.69
Shoccoe	Big Black	.22	.24			T.	.50	.10	.65	1.02	1.70	.83	.02	T.	T.		.11	.21							.83		.06	.43					6.92
Suffolk	Mississippi	1.06	2.02	.21				.10	.34	.30	.42	.21	2.07	.03	.03	T.										T.	2.32		T.			9.13
Swan Lake ‖	Yazoo						.42	.60	T.																			.60	T.				1.62
Tchula	do			.86			T.	.21	.56	.22	1.78	.15	.18	.30								.58			.30		1.09					6.23
University	do																																
Utica	Mississippi								.60	.16	.70	1.42	.04	1.10	.50	.08			1.20	.08							.98						6.86
Vicksburg	do		T.	.03		.01	.01	.80	.77	.75	.45	T.			.15	.01			.90	T.						.06	.87			T.			4.81
Water Valley	Yazoo				1.18		T.	.40	2.00	T.	T.				T.	.20	T.	.80	T.						.05		.10						4.73
Woodville	Mississippi	1.38						.30	.17	.33	.35	.27			.03	.15								T.	.22	.16	.15	.04	.12				3.67
Yazoo City ‖	Yazoo				.08			.02	.31	.76	1.30	.63	.08	T.						T.			.24				3.47						6.89
Louisiana.																																	
Abbeville	Coast	.86	.40	.68	.01				.05		T.	1.26	.10	*	.12	.10	.01			.03				.16	.02	.06	.98		.05	.33	.17		5.39
Alexandria ‖	Red	T.	2.00						T.	.36	.70	1.27	T.		1.30									T.	T.		T.	.95		.30	T.	.20	7.08
Amite ‖	Coast	1.30	T.	1.50	.50	T.			.50	.30		T.	T.	.55	.30												T.	.90		1.50	.30	T.	7.65
Antioch	Red			.04						1.25	.50				.08	1.00							.71				1.45						5.03
Avoca Island	Coast			1.08	.50										.50					T.			.65					.25	.10		.05	.60	3.73
Baton Rouge ‖	do		.65		.10				.19	.26	.05	.39		.05		.13	.30	.52							.09	.65	.50	1.02		.04		.15	5.21
Burnside	do																																
Burrwood	do	1.93	.44	T.															.22				.12	.44	.70	.04	.38	.49	.42	.34			6.96
Cades	do	.25	.80	.08	.20			.08	T.			T.	.50				T.			.04			.25	1.50		.10			.20	.09	T.	4.04
Calhoun	Ouachita			T.			T.	.11	T.	1.52	1.25	T.		.06	T.	T.									T.	3.48						6.42
Cameron	Coast	.34	.34						.13		.14	.28		.19	1.65	.25	.05				.08		.68			T.		.16	.18	.06	.60	.07	5.26
Carrollton	do																																
Cheneyville ‖	Red	.45	.50							.25			1.00		1.80											.50	.17	.28		.15	.05	.15	5.30
Cinclare	Coast	.80	.10	.30					.20		.08		.70		.60	.10	1.50	.20					.40	.10	.10	.30	.60						6.08
Clinton ‖	do	.80	.15	T.	.25				.11	.55	T.	.53	.25	.01	.80	.80	.02		.30							.05	.08	.41		.07		.02	5.20
Collinston	Ouachita							.08	.40	.60	1.94	.40				T.											.14						3.56
Columbia	Red																																
Covington ‖	Coast	1.67	.67	.62	.32				.08	.64			.04		.95			.23							.10		.04	.04	.80	.15	.10			6.45
Dodson	Red		T.					.10	.41	.43	.11	.08			.53	T.										.73	2.05						4.50
Donaldsonville ‖	Coast	2.60	.10		.95				.23	.20		.85	2.90	2.20	.40	.60	.42						T.	T.		.20	1.50		T.			.35	13.50
Dutchtown	do	.25							.36		.25	3.00		.10	.20	1.50	.18	.10						.40	.90	.41	1.72		T.				9.40
Farmerville ‖	Ouachita			.06			T.		1.00	1.20					.44							.62					.17						3.49
Ferriday	do	.72	.45	1.45	.48		....		.20	.40	.42																.40						4.52
Franklin ‖	Coast		T.	.29	.61	.16			T.	.02	T.	.40	T.	.20	.02	.05	.06	.20		T.			.02	1.16	.64	T.	T.	.08		.85	.06	.15	4.97
Franklinton	Pearl	1.30	.40	.55			.70	.20	.70		5.75	.10	.10	T.	.45	T.						.20	T.	T.	1.75		.95		.15	.15			13.45
Grand Cane ‖	Red	.53		.09						.88	.95	1.10												.64		.06		.05			.91		4.21
Grand Coteau	Coast	.75	.30	.60				.25	.35		.30	.22											T.	2.12	.03			2.05	1.40	.35			8.72
Gueydan	do																																
Hammond	do	.15	T.	.53							1.00		.20	.30								1.20	.60	.40	1.80	.20			1.00				7.38
Houma	do			.15								.15	.05		.30	.50	.30		.10	.10				.10	.10			.45	.15				2.45
Jena	Red	.27							.20	.07	.45			.76												.45				.21			2.41
Jennings ‖	Coast		2.27	.19	1.19							.29			.20	1.38			1.48					2.45	.13	.15	1.53		.33	.03	1.09	12.71
Laark	Ouachita			.15			.12	.05	1.06	1.48			.95										1.30			10						5.21
Lafayette ‖	Coast			1.23					.20			.80	1.20			.07	.44		.07				.04	.44	.10	.03		.21		.48	.22	.65	6.18
Lake Charles ‖	do		.04	.68	.12				.32			.33			.34		.09								.51	.06	1.43	.62		.10	.31	.09	5.04
Lakeside	do		.82	.13						.10	.30			.05	1.26	.96	2.06										.98		.30	.25			7.21
La Rose (near)	do																																
Lawrence ‖	do	.70	.30	.55									.10		.45									1.30	.30			.10	.20			.10	4.10
Leesville	Sabine																																
Liberty Hill ‖	Red			.25				.97	.20	2.00	1.33	.30															.69		.50	.33			6.17
Logansport	Sabine	.70	.09							.10	.30	1.81				1.47									.62								5.09
Melville ‖	Red	.05	.08	T.	.10				.20	.25		.28				.05									.02	.02	1.05	T.		.30	.80	.37	3.57
Merryville	Sabine																																
Minden ‖	Red	.45	.03	.02			.04	T.	.34	.62	5.05	.52				.10											.26		.10				7.53
Monroe ‖	Ouachita		.01	.25	.10			.01	.16	.50	2.45	.11	.46	T.	T.	.05					.46			T.			.36	.30	.01		.04		5.27
Morgan City	Coast		.03	.13	.04	.12						.03			.29	.41	.26	.49								.48		.11	.16	.32			2.90
Newellton	Mississippi							T.	.10	.40	.31	.14			T.											.05				.06			1.06
New Iberia	Coast	.10	2.05	1.12	.20			.20	T.		.30	.10	.40	.05	T.	T.	.47						.15	.37	T.	T.	.70		.30	.25	.25		7.01
New Orleans (1)	do	T.	.17	T.	.48			.09	.16		T.	.05	T.		T.	.68		.11				.01	T.	.14	.22	T.	.78	.86	.67	.36	.15		4.93
New Orleans (2)	do		.10	.01				.03	.01				.18			.12		.93						1.28		.17	2.06	.11	.05	.97	1.20	7.22
New Orleans (3)	do		.10		.23								.03		.05	.10	.50	.34					.11	.16	.49		.88	1.30	.17	.12	.42	.70	5.70
New Orleans (5)	do			.05	.67			.10	.01							.26		1.29				.08	.22	.30	.30	.02	.55	1.85	.04	.03	.57	.01	6.45
New Orleans (6)	do		.05		.67			.07	.18			.03				.62		.68							.37		.91	1.00	.50	.23	.24		5.55
New Orleans (7)	do		.18	.05	.30			.60			.02	.06			1.73								.28	.14	.75	.06	.60	.70	.70	.20	.02		6.39
New Orleans (8)	do		.15					.11	.03						1.26							.09	.08	.12	.07	.08	.67	1.68	.40	.09	.04		4.87
Opelousas ‖	do		.51		.66					T.		.08	T.												1.49	.59		.28		.16	.36		4.13
Paradis	do	.20			.95										1.64		.46		.40	.10			.85	.20	.27				.21	.75	.65		6.68
Pearl River	Pearl	.02	.06	.94	.02					1.54			.02	T.	.40	.02	.02	.60					.02	.44	T.	.04		.10			.04	T.	4.28
Plain Dealing	Red			.30	.03			.01	.01	1.22	.53												1.74				19						4.03
Rayne ‖	Coast		1.70	1.00	T.				.10	.12		.40	1.80	.20	T.	T.	.20	T.	.40					T.	1.50	.10		.95		.15	.10	.45	9.17
Reserve	do					.17			.11	.04			.26	.14											1.38	.03	.31			.20	.43		3.16
Richland Plantation	Red	1.25			T.			.86	.22		T.	1.14	.27	.06			T.									1.00	.66			T.		5.46
Robeline ‖	do									.20						.25									.50		.10					1.05
Ruston	Ouachita		.01	.10				.06	.19	1.70	2.17	.04				.05							.01				.75					5.08
St. Francisville	Mississippi																																
Schriever ‖	Coast	.35	T.	.40	T.								1.10		2.20	.60	.25						.70	.90		T.	.35	.50	.45				7.80
Shreveport	Red		1.01	1.24			T.	.65	.05	5.11	2.52				T.								.05			19			.07		T.	10.89
Simmesport	do		3.66		.49				.01	.29	.10	.53	.02	1.15		.20	.16							.02			21	.15		.03	T.	.10	7.12
South. Univ. Farm	Coast	T.	.30								T.		.30			T.	T.	.10					T.	.70	1.55	T.	.10	.30	1.32	.05	.10	.02	4.84
Sugartown	do	1.12	.88				.68				.73			.63										2.45							.65		7.14
Tallulah ‖	Mississippi				.20					1.15	2.63		1.81			.08				2.00								.15			.08		8.10
Walker	Coast	.24		.41					.52		.88	1.00	.08						.11	.11					.18	1.10	.11	.17	.01				4.91
Winnsboro	Red																																

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 7, Lower Mississippi Valley.*

Date.	Colorado.						New Mexico.				Texas.				Kansas.										Oklahoma.			
	Lamar.		Leadville.		Pueblo.		Albert.		Cimarron.		Amarillo.		Paris.§§		Dodge City.		Ellinwood.		Iola.		Liberal.		Wichita.		Ardmore.§§		Bartlesville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	86	64	68	42	81	60	95	65	85	57	89	63	89	69	76	61	86	63	91	58	82	61	80	66	82	72	87	62
2....	85	63	67	38	84	61	97	66	87	54	95	67	90	72	83	61	77	64	86	64	86	64	80	62	99	66	87	64
3....	80	61	70	40	81	63	99	68	79	59	90	66	96	70	77	59	80	57	80	60	81	60	79	58	94	72	82	62
4....	90	61	68	39	86	62	89	60	77	53	82	62	80	68	81	61	80	63	82	54	86	61	78	58	73	70	84	59
5....	90	60	68	38	89	58	94	62	85	51	81	63	70	60	86	66	88	65	81	59	89	76	80	60	68	66	87	60
6....	90	59	66	39	87	56	98	66	85	50	87	64	73	60	87	62	88	60	85	62	92	63	79	60	78	61	89	61
7....	88	60	61	38	80	52	99	67	84	47	83	59	84	63	84	59	90	63	90	67	86	57	85	68	88	65	91	67
8....	76	54	61	34	71	57	96	67	74	49	67	57	86	66	75	59	81	61	82	64	81	58	74	64	88	68	90	65
9....	84	52	70	36	82	50	98	67	84	46	80	55	87	64	81	56	83	55	82	60	82	56	81	60	88	65	90	61
10....	94	55	70	40	95	54	94	64	88	51	91	61	85	62	87	60	88	56	90	56	90	60	86	65	88	66	93	62
11....	98	60	71	68	95	56	92	60	89	54	93	69	82	69	95	69	94	72	91	68	96	66	90	71	91	67	94	62
12....	101	57	73	41	92	58	90	62	86	53	91	68	89	72	94	69	99	81	97	73	99	66	95	73	91	74	98	72
13....	85	58	67	41	85	59	92	63	84	56	90	65	91	71	92	68	100	75	99	71	97	62	94	66	93	73	100	72
14....	75	64	52	42	73	62	90	60	68	54	87	64	93	71	80	65	83	66	92	69	96	62	94	66	96	70	99	72
15....	84	62	62	42	78	62	91	64	76	55	88	64	90	71	85	65	87	67	85	69	91	69	86	69	94	70	92	72
16....	89	61	64	35	86	55	97	68	81	47	89	68	93	71	90	70	92	71	92	69	97	68	91	70	95	70	96	69
17....	88	65	62	40	84	59	101	69	77	49	89	64	92	71	89	68	94	77	94	72	99	64	91	72	93	71	98	71
18....	91	68	68	37	88	55	98	68	81	50	87	67	91	71	89	68	96	81	94	72	91	63	92	72	94	73	99	72
19....	88	61	65	36	83	62	100	64	82	45	89	64	95	72	92	68	98	74	97	73	94	66	95	74	97	74	101	73
20....	82	65	66	38	81	58	95	61	78	55	92	66	96	72	90	66	96	67	95	68	91	66	94	66	98	74	104	74
21....	85	68	68	37	83	60	94	61	75	54	79	62	96	73	81	63	87	62	85	67	86	61	84	65	97	74	89	70
22....	88	56	66	36	84	57	98	66	79	50	91	62	87	69	85	62	87	63	88	63	87	60	88	65	93	73	96	65
23....	96	55	68	36	92	52	96	61	79	49	92	64	96	68	88	63	93	63	92	60	92	59	90	66	98	71	98	64
24....	98	56	70	38	92	59	90	60	85	45	94	62	94	67	97	67	101	70	96	67	97	62	98	68	99	71	103	68
25....	100	56	72	38	96	56	98	62	84	49	93	68	92	68	95	64	103	69	99	73	97	60	98	74	97	72	103	74
26....	101	57	78	40	94	53	94	62	86	52	97	65	88	75	98	64	104	65	96	72	99	63	97	69	96	75	105	74
27....	97	60	65	42	94	56	95	61	83	52	92	68	94	60	95	68	101	65	98	71	97	63	98	73	101	73	105	74
28....	95	68	70	39	87	63	96	62	82	54	97	68	94	70	96	73	102	77	100	72	99	71	100	74	100	71	104	73
29....	99	60	68	43	95	58	94	63	81	52	95	70	92	69	95	73	96	71	96	75	99	71	95	75	98	70	102	70
30....	95	65	58	42	83	60	90	60	79	50	90	61	92	69	94	68	97	81	95	72	95	63	95	69	97	71	100	75
31....	92	57	61	39	87	61	94	61	80	51	90	64	91	72	93	68	96	77	97	75	95	69	96	75	96	72	101	74
Mns..	90.0	60.3	66.5	38.8	86.1	57.9	95.0	63.5	81.4	51.4	88.7	64.2	89.3	68.5	88.1	64.9	91.8	67.8	91.2	67.0	91.9	63.5	88.8	67.5	92.3	70.3	95.7	68.1

Date.	Oklahoma.														Missouri.										Kentucky.		Tennessee.	
	Enid.§§		McAlester.		Mangum.§§		Muskogee.		Oklahoma.		Weatherford.§§		Woodward.		Caruthersville.		Ironton.§§		Lamar.§§		Olden.		Springfield.		Blandville.		Jackson.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	89	65	90	68	92	67	92	64	77	76	82	64	82	60	91	61	89	53	93	57	86	59	89	63	86	62	.....	.....
2....	93	67	98	71	102	67	92	69	95	71	97	62	90	68	94	64	84	57	90	67	85	64	83	63	86	62	96	57
3....	87	63	91	72	93	69	84	70	88	68	89	65	85	62	80	67	73	59	77	62	79	58	71	58	78	60	89	64
4....	85	64	88	65	83	72	81	61	77	65	84	65	85	65	81	55	74	43	82	54	76	49	76	53	72	55	84	50
5....	83	60	80	62	78	66	79	60	76	64	74	64	84	67	87	57	79	43	83	59	79	50	77	56	76	53	80	49
6....	82	64	79	61	88	66	79	61	79	64	77	66	89	67	90	67	83	49	87	59	82	66	82	59	85	59	91	55
7....	90	65	90	66	89	61	84	58	82	67	78	61	90	62	87	67	85	48	85	65	78	69	75	64	82	66	90	65
8....	80	64	86	64	78	65	83	65	75	66	74	62	77	61	84	67	78	67	86	66	80	69	78	63	81	67	81	64
9....	87	55	86	63	81	60	86	64	83	62	86	58	85	55	81	66	80	65	84	62	81	65	79	58	76	66	81	63
10....	90	59	92	64	90	61	90	63	86	64	88	59	88	62	85	60	82	56	89	58	83	64	82	60	81	58	88	66
11....	96	66	89	73	96	66	88	70	91	71	93	65	96	67	89	70	89	60	94	64	87	54	86	67	86	69	88	68
12....	96	70	94	75	95	69	93	72	90	74	94	70	95	70	90	70	81	69	95	70	89	57	90	69	81	69	90	68
13....	98	72	95	75	97	69	94	83	90	72	95	71	97	73	91	66	92	67	97	72	93	61	92	71	88	66	.....	.....
14....	96	70	95	70	91	69	92	70	92	72	94	69	88	67	91	71	89	66	93	69	90	61	89	68	86	68	95	67
15....	95	66	96	69	96	69	92	70	90	71	97	68	93	67	93	71	87	63	89	69	88	65	86	67	86	67	91	68
16....	97	70	96	71	97	68	93	77	91	72	97	70	95	72	90	71	87	64	90	68	88	67	87	69	84	69	92	66
17....	97	70	95	71	93	69	94	72	70	72	96	70	95	69	94	72	90	65	96	71	91	69	90	71	88	71	95	67
18....	98	72	96	74	97	68	95	73	91	72	97	71	96	68	96	74	92	68	97	72	91	69	90	71	90	74	96	72
19....	99	71	97	75	96	69	98	74	92	73	98	72	97	70	97	74	93	69	99	73	93	70	94	71	91	76	96	70
20....	104	73	101	75	100	69	100	70	95	71	101	71	101	72	100	77	91	75	96	75	95	78	90	67	92	72	97	71
21....	89	69	98	73	96	71	89	72	86	70	88	68	84	66	91	72	84	68	88	68	82	67	82	67	79	70	91	70
22....	96	59	100	68	96	67	95	65	92	65	98	62	93	61	93	70	85	58	89	63	89	57	84	63	84	68	90	70
23....	98	62	99	68	99	66	96	88	92	70	98	64	95	57	95	69	88	57	92	62	90	59	87	66	83	65	90	68
24....	95	64	99	73	100	69	100	71	97	72	102	67	102	69	93	74	89	58	94	66	90	62	90	67	86	62	93	58
25....	96	60	100	74	100	70	100	70	97	73	103	71	103	72	95	75	93	67	96	69	94	69	92	73	87	67	94	67
26....	104	68	96	77	100	66	101	74	97	71	102	65	104	67	85	70	92	70	96	74	96	70	92	76	82	72	85	69
27....	106	72	105	73	102	68	102	71	98	74	106	66	102	72	93	66	89	68	97	73	97	80	93	71	84	67	95	64
28....	105	72	103	74	102	69	103	74	98	71	103	72	101	77	96	71	95	65	98	73	98	66	94	72	92	64	96	67
29....	103	93	101	72	101	69	99	71	96	70	101	72	99	74	95	72	97	67	96	69	95	69	92	72	92	75	96	66
30....	102	70	98	74	99	69	100	71	94	71	100	70	99	73	92	70	92	63	94	70	92	67	89	70	92	72	95	66
31....	100	72	99	73	99	69	100	73	94	74	99	70	98	70	96	72	94	70	97	71	95	70	93	72	92	73	97	68
Mns..	94.7	66.9	94.6	70.4	94.4	67.5	92.7	69.9	89.4	69.6	93.3	66.9	93.2	67.2	90.8	68.6	87.0	61.8	91.6	66.8	88.1	64.5	86.2	66.4	84.8	66.6	b91.1	b64.9

TABLE 3.—*Maximum and minimum temperatures at selected stations for* ***August, 1912.*** *District No. 7*—Continued.

Date.	Tennessee.				Arkansas.																		Mississippi.					
	Kenton.		Memphis.		Bentonville.		Corning.		Dardanelle.§§		Eldorado.§§		Fort Smith.		Little Rock.		Pine Bluff.§		Texarkana.		Wynne.§§		Clarksdale.§§		Corinth.§§		Greenville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	88	56	86	69	88	57	88	60	90	62	89	70	86	66	88	70	92	66	94	70	89	64	90	65	88	62	94	72
2	91	61	89	73	87	63	89	65	90	67	89	68	90	68	90	72	94	66	94	71	91	64	90	63	93	63	94	65
3	78	64	76	63	77	59	86	64	83	68	91	72	84	68	85	67	91	69	94	70	78	64	90	63	87	67	96	71
4	76	52	75	58	76	54	75	52	78	54	81	63	76	63	76	61	84	61	84	65	77	56	81	61	79	58	84	63
5	81	49	80	60	82	54	79	50	79	52	85	56	76	60	82	58	86	57	85	60	78	53	84	55	84	54	88	59
6	.....	.....	82	65	80	58	86	55	78	54	80	68	72	65	73	66	81	61	77	62	86	62	81	61	86	60	86	61
7	86	65	86	67	80	66	85	64	83	55	90	65	78	65	85	68	92	66	91	63	90	66	92	66	88	68	95	71
8	84	67	83	70	78	65	84	68	85	58	87	70	80	66	85	69	85	69	87	65	87	67	85	69	84	65	89	74
9	.....	59	77	66	82	62	84	66	84	66	80	67	83	66	82	66	81	67	79	67	82	66	81	65	80	66	80	68
10	83	.....	84	65	85	60	85	59	90	61	84	68	91	64	87	66	88	67	84	67	89	65	84	66	87	65	87	69
11	88	66	84	71	86	67	85	70	81	62	89	68	82	70	79	69	84	68	88	67	88	69	88	70	89	68	91	71
12	.....	.....	87	70	89	68	88	68	92	67	90	73	94	70	88	69	92	72	92	72	92	69	91	68	90	68	91	70
13	.....	.....	91	72	91	69	91	66	95	69	90	71	96	73	91	72	93	71	95	72	94	72	92	70	91	66	93	70
14	.....	.....	88	74	91	69	90	71	91	70	90	70	92	72	88	72	93	70	95	70	94	72	92	69	92	68	93	72
15	97	65	87	73	89	66	89	71	91	69	89	71	91	70	88	72	92	71	92	69	93	70	91	72	94	70	91	72
16	88	69	85	73	90	66	85	71	89	68	91	72	91	70	88	71	93	71	96	70	91	72	93	70	91	69	94	73
17	.....	.....	90	75	91	69	91	71	94	69	92	72	96	74	92	74	95	72	95	71	95	73	95	72	94	69	96	73
18	.....	.....	91	78	91	69	92	74	95	72	92	73	95	74	93	75	96	72	94	73	96	75	95	73	96	72	97	74
19	.....	.....	91	76	92	70	93	75	97	70	95	73	97	73	93	74	97	72	98	74	97	74	96	72	96	72	97	72
20	93	71	92	78	95	68	93	74	97	70	96	74	99	74	94	74	98	73	98	71	92	81	96	74	96	72	98	74
21	.....	.....	88	71	81	68	87	71	97	71	95	75	94	75	94	72	98	73	100	70	95	75	95	75	92	73	98	77
22	.....	.....	85	74	88	61	88	68	95	71	87	67	94	70	90	70	88	67	83	68	91	73	88	69	87	70	86	73
23	.....	.....	86	74	89	62	88	66	96	65	93	66	92	70	89	73	91	68	97	68	92	71	90	71	90	72	95	70
24	.....	.....	88	72	93	66	89	65	97	63	91	70	98	71	91	71	94	69	94	69	93	62	93	65	92	65	96	71
25	.....	.....	88	73	94	71	93	72	97	70	93	72	98	74	88	72	91	72	95	70	94	73	91	67	92	68	94	73
26	89	58	84	67	96	72	90	72	97	71	83	74	97	74	90	68	91	73	87	75	90	74	92	73	90	71	94	74
27	90	64	90	67	97	69	91	77	94	66	90	67	100	70	92	66	94	63	96	65	94	64	91	63	91	66	90	65
28	90	66	89	75	96	70	95	73	95	67	93	67	101	75	92	76	95	65	97	66	95	72	93	65	92	68	96	67
29	91	68	92	75	95	70	94	73	94	69	90	71	95	73	89	74	93	69	93	70	95	70	92	69	93	68	94	71
30	91	66	89	76	92	72	92	69	93	73	91	73	96	74	89	74	93	72	95	70	94	73	91	72	92	68	94	74
31	92	70	90	76	94	72	95	74	94	71	92	72	97	74	91	74	95	73	95	71	97	74	93	72	94	72	97	75
Mns.	87.6[m]	63.1[m]	86.3	70.8	88.2	65.5	88.4	67.5	90.7	65.8	89.3	69.6	90.7	70.0	87.8	70.2	91.3	68.5	91.7	68.7	90.5	68.9	90.2	67.9	90.0	67.2	92.5	70.5

Date.	Mississippi.						Louisiana.																			
	Kosciusko.§§		Natchez.§§		Vicksburg.		Alexandria.§§		Baton Rouge.§§		Covington.§§		Lafayette.§§		Lake Charles.§§		Monroe.§§		New Orleans.		Robeline.§§		Schriever.		Shreveport.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	97	70	90	70	89	72	94	74	92	77	89	70	89	76	95	74	92	70	86	79	94	74	94	74	91	73
2	92	63	92	71	91	73	95	72	89	73	87	73	86	71	89	70	98	69	88	76	95	72	87	74	92	68
3	90	66	89	74	88	73	94	72	90	73	90	74	89	69	95	69	92	72	88	77	96	71	98	73	93	67
4	82	65	82	69	81	66	90	72	87	74	88	74	84	72	88	72	84	68	85	75	89	70	88	74	81	68
5	85	57	85	60	84	60	90	60	88	63	92	64	85	65	90	63	87	59	87	72	90	58	90	68	85	63
6	84	60	89	64	85	70	95	60	93	65	93	66	90	66	94	62	89	61	90	76	89	58	95	61	81	69
7	86	65	89	68	89	72	92	65	92	66	90	74	90	69	91	65	93	70	91	78	95	65	95	71	89	69
8	89	68	89	75	85	70	90	75	90	74	92	74	90	70	91	70	88	71	92	78	95	72	93	73	88	72
9	83	71	86	71	83	67	90	73	92	73	92	73	92	71	93	72	78	69	92	79	90	75	95	73	78	66
10	84	68	88	69	83	68	88	74	93	75	92	76	90	75	91	70	83	68	92	79	90	74	95	72	79	67
11	91	67	89	67	88	68	90	67	95	70	92	72	91	72	92	71	93	68	91	78	96	65	95	74	91	69
12	91	65	90	66	88	70	96	70	94	71	93	73	91	70	95	72	93	69	90	76	98	67	94	71	92	74
13	90	67	92	69	89	70	94	71	94	69	97	70	91	72	94	70	93	70	91	75	93	70	94	70	92	73
14	93	70	92	74	89	72	92	70	95	68	90	70	90	71	92	67	91	71	90	74	88	66	91	71	90	71
15	92	71	93	69	92	72	90	69	93	69	93	71	90	71	93	66	93	71	89	73	95	66	93	71	89	72
16	93	72	93	70	90	72	92	70	94	71	97	71	97	71	90	69	94	72	90	76	96	73	93	70	89	74
17	95	70	94	68	90	75	96	72	92	70	98	72	93	71	96	68	94	72	90	77	97	69	95	70	90	73
18	94	70	95	69	91	74	97	71	96	69	96	73	91	73	95	70	96	72	93	77	100	70	97	72	94	75
19	94	70	95	75	90	73	98	74	96	72	95	73	94	74	96	69	95	72	94	77	99	69	98	72	93	75
20	95	72	96	76	92	75	98	75	97	73	97	74	94	73	98	70	96	74	92	78	98	70	97	72	94	76
21	94	73	94	78	91	77	99	74	97	74	96	75	95	74	99	68	95	76	90	78	100	72	98	74	94	76
22	88	74	92	76	86	75	94	74	97	75	94	75	90	74	100	70	92	75	89	76	95	75	92	73	89	72
23	93	68	94	76	91	72	97	73	98	74	98	73	95	74	98	71	95	70	94	74	98	73	99	72	92	73
24	94	68	94	73	90	74	95	67	89	72	92	73	93	71	90	68	94	71	88	74	97	64	89	70	91	70
25	90	69	93	69	89	73	90	67	90	72	93	71	96	73	91	67	90	71	91	76	95	64	91	71	93	73
26	92	69	91	74	87	69	92	70	93	73	92	71	99	74	95	68	88	74	91	72	95	75	96	72	88	70
27	90	63	90	68	85	67	92	69	90	70	91	71	87	72	92	67	89	66	85	73	95	67	90	73	90	67
28	92	65	92	68	91	72	93	69	89	71	90	71	87	71	90	66	91	68	88	73	96	65	92	72	91	72
29	92	68	92	68	90	72	90	70	92	71	91	73	89	73	91	69	91	71	88	75	95	65	95	72	87	72
30	92	69	93	68	90	73	92	72	96	73	94	72	95	72	94	69	93	72	92	76	96	64	97	71	91	73
31	94	72	95	71	90	74	95	71	95	72	95	72	97	72	95	70	94	72	91	76	98	70	98	72	92	73
Mean	90.5	67.9	91.2	70.4	88.3	71.3	93.2	70.4	92.8	71.4	92.9	72.1	91.3	71.7	93.3	68.8	91.1	70.1	89.9	75.9	94.9	68.6	94.0	71.5	89.3	71.1

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 8, TEXAS AND RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The mean temperature and monthly precipitation, for the district as a whole, exceeded the normal. The sunshine was abundant and the number of rainy days averaged about normal. There was, however, a wide range in the departures from the normal of both temperature and precipitation, and where a general excess of precipitation occurred there was a corresponding deficiency of temperature. In southern New Mexico and northeastern Texas, which had decidedly heavy precipitation, the mean temperature averaged about 1° below the normal, while in southwestern Texas, which had very little or no precipitation, the mean temperature was nearly 5° above the normal. Severe wind and excessive rainstorms did considerable damage in portions of northern Texas and of southern New Mexico. In the latter State most of the precipitation occurred with local thunderstorms and the monthly amounts varied greatly even at nearby stations. Generally droughty conditions prevailed in the southern and central portions of Texas which caused cotton to open rapidly and were favorable for picking, but prevented the growth of a top crop. The average number of days with 0.01 inch or more of precipitation was 8 in Colorado, 10 in New Mexico, and 5 in Texas.

The greatest and least monthly amounts of precipitation in Colorado were respectively 2.65 inches at Saguache and 0.93 inch at Manassa; in New Mexico, 7.05 inches at Berino and 0.10 inch at Los Lunas; and in Texas, 15.28 inches at Longview and a trace only at 8 stations, while at 15 other stations, nearly all in southwestern Texas, there was none. Excessive precipitation of 2.50 inches or more in 24 consecutive hours occurred at 1 station in New Mexico and at 20 stations in Texas, the heaviest amount reported being 6.30 inches at Brazos, Tex., on the 5th–6th.

TEMPERATURE.

The monthly mean temperature was 0.2° above the normal in Colorado, 0.7° below in New Mexico, and 1.8° above in Texas. The change of temperature from day to day was generally slight and the monthly range was less than normal. In the southwestern portion of Texas the weather was persistently warm and dry, and there were but two or three days during the entire month when the temperature did not average above the normal. In the northern and western portions of the district the heat was not so persistent and there were several warm and cool periods. The warmest days as a rule occurred from the 1st to 3d, while the coolest nights occurred on various dates. The daily range of temperature varied from 8° on the Texas coast to 37° in the northwestern portion of the district.

The highest and lowest temperatures reported were, respectively: In Colorado, 91° at Saguache on the 12th, and 26° at Hermit on the 9th; in New Mexico, 104° at Artesia on the 10th, and 32° at Winsors on the 9th, 16th, and 19th; and in Texas, 109° at Killeen on the 15th and at San Angelo on the 2d, and 57° at Eastland on the 19th and at Marathon on the 18th. The local monthly means ranged from 50.5° to 63.9° in Colorado; from 58° to 79.8° in New Mexico; and from 74.8° to 90.6° in Texas.

PRECIPITATION.

The average precipitation for the Rio Grande watershed was 2.45 inches which is 0.31 inch under the normal amount. There was a marked excess from Carrizozo, N. Mex., to El Paso, Tex., which was more than offset by a general deficiency south of El Paso, Tex., and by a slight deficiency north of Carrizozo, N. Mex. From Del Rio, Tex., to the mouth of the stream there was very little or no precipitation.

The Rio Pecos watershed had an average rainfall of 2.49 inches, which is 0.46 inch greater than normal. The amounts were very unequally distributed, but averaged well above the normal north of Cloudcroft, N. Mex., and decidedly below the normal south of Artesia, N. Mex.

Heavy rains occurred over the Sabine and Neches watersheds, and over the upper and middle portions of the Trinity and Brazos during the first decade, and stations in these sections received from 5 to 15 inches of precipitation. The rainfall over the lower portions of the Brazos and Trinity was light and while the average for the Brazos watershed approximated the normal, there was a decided excess of precipitation over the watersheds east of the Brazos, ranging from 0.95 inch for the Neches to 5.45 inches for the Sabine. Decided shortages of precipitation occurred over the watersheds west of the Brazos, the deficiencies ranging from 0.59 inch for the Colorado to 1.87 inches for the San Antonio. The coastal plains showed a deficiency of 1.63 inches, although good rains occurred over the upper coast counties. The lower coastal plains and the Nueces watershed received little or no moisture, and decidedly droughty conditions prevailed in those sections during the entire month. The following are the monthly amounts in inches and hundredths for the various watersheds: Nueces, 0.04; San Antonio, 0.53; Guadalupe, 0.66; Lavaca, 1.82; Colorado, 1.62; Brazos, 2.49; Trinity, 3.96; Neches, 3.70; Sabine, 7.90; and coastal plains, 1.78.

RIVER CONDITIONS.

The Rio Grande and Rio Pecos had sufficient water for irrigation and for stock. Of the Texas streams those west of the Colorado were at low-water mark throughout the month. The Colorado had slight rises, but hardly sufficient to meet the demands for irrigation purposes. The Brazos, Trinity, and Sabine were well above low-water mark during the last two decades from the heavy rains earlier in the month. The Trinity attained a stage of 26.5 feet at Dallas on the 8th, which is 1.5 feet above flood stage. The Sabine was 15 to 20 feet above low-water mark from the 12th to the close of the month.

TABLE 1.—*Climatological data for August, 1912. District No. 8, Texas and Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																			
Blanca	Costilla	7,865	3																Dr. L. C. Audrain.
Cumbres	Conejos	10,015	5								1.54		1.05	0	5	12	14	5	sw.	Mrs. Ida M. Lively.
Garnett	Costilla	7,576	19	61.2	+ 0.3	86	26	35	6†	49	1.25	− 0.03	0.60	0	5	10	17	4	sw.	Chas. Speiser.
Hermit	Hinsdale	9,843	5	50.5	.....	74	9†	26	9	48	1.76	.....	1.04	0	6	17	6	8	.....	Marion Mason.
La Veta Pass	Costilla	9,000	2																	Clara M. Wright.
Manassa	Conejos	7,700	6	61.6	.....	88	26	34	8	48	0.93	.....	0.60	0	5	8	16	7	sw.	J. B. Chapman.
Platoro	....do	7,675	5								1.81	.....	0.69	0	13	16	10	5	w.	Walter R. Hook.
Saguache	Saguache	7,740	20	63.9	+ 1.9	91	12	36	8	50	2.65	+ 1.28	0.95	0	4	8	7	16	nw.	Eugene Williams.
San Luis	Costilla	7,794	21	61.4	− 0.6	87	26	37	7†	47	1.64	+ 0.05	0.50	0	9	18	12	1	sw.	B. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral	9,235	1	54.2	− 0.8	73	9	36	20	36	1.44	− 0.82	0.62	0	14	9	17	5	ne.	U. S. Weather Bureau.
New Mexico.																				
Agricultural College	Dona Ana	3,863	51	76.6	− 2.8	100	8	59	25	40	5.04	+ 3.34	1.14	0	14	10	19	2	sw.	N. Mex. Agricultural College.
Alamogordo (near)	Otero	4,338	15	76.2	− 1.9	100	7†	58	16†	40	4.11	+ 1.74	1.35	0	9	6	13	12	sw.	Edward Le Briton.
Alamogordo	....do	4,320	3								4.31	.....	1.40	0	8				.....	Agent E. P. & S. W. R. R.
Alamos Ranch	Sandoval	7,800	2								3.20	.....	0.93	0	7	22	6	3	sw.	H. H. Brooks.
Albuquerque	Bernalillo	5,000	36								0.63	− 0.65	0.18	0	6	12	16	3	.....	Pitt Ross.
Ancho	Lincoln	6,112	3								3.77	.....	1.25	0	7				.....	Agent E. P. & S. W. R. R.
Anchor Mine	Taos	10,600	1								2.54	.....	0.50	0	14	1	10	20	e.	C. H. Brigham.
Artesia	Eddy	3,350	4	79.8	.....	104	10	59	30†	42	0.58	.....	0.20	0	3	27	3	1	se.	W. Benson.
Aspen Grove Ranch	Rio Arriba	9,000	3								2.64	.....	0.61	0	14	9	21	1	.....	J. D. Maupin.
Banks	Roosevelt																			Aaron Hawkins.
Batemans Ranch	Rio Arriba	8,900	3								1.42	.....	0.50	0	5	14	15	2	w.	J. W. Bateman.
Berino	Dona Ana	3,788	1								7.05	.....	2.62	0	14	3	15	13	.....	J. C. Rishaberger.
Bluewater	Valencia	6,732	10	65.2	− 2.1	95	7	36	9	58	1.78	+ 0.12	0.64	0	9	7	23	1	w.	Bluewater Development Co.
Boaz	Chaves	4,154	3	77.3	.....	102	2	58	23†	39	3.53	.....	2.25	0	14	12	19	0	s.	D. C. Savage.
Capitan	Lincoln	6,348	3								3.54	.....	0.87	0	12	1	24	6	s.	Agent E. P. & S. W. R. R.
Carlsbad	Eddy	3,120	17	79.8	− 0.1	102	9	62	16†	39	1.93	− 0.23	0.53	0	10	12	17	2	se.	U. S. Reclamation Service.
Carrizozo	Lincoln	5,429	4	73.3	.....	95	3	58	1†	34	4.07	.....	0.80	0	11	7	19	5	e.	Agent E. P. & S. W. R. R.
Cerrillos (near)	Santa Fe	5,700									2.14	.....	0.46	0	9	9	19	3	w.	Irving C. Sweet.
Chama	Rio Arriba	7,851	14	61.1	− 2.9	85	26	37	8	45	2.36	− 0.28	1.30	0	6	18	13	0	sw.	F. C. Johnson.
Cloudcroft	Otero	8,650	10	58.2	+ 0.2	74	8†	43	16	24	6.95	+ 2.75	0.91	0	23	10	17	4	.....	Agent E. P. & S. W. R. R.
Corona	Lincoln	6,666	3	68.6	.....	90	10	50	22†	36	2.55	.....	0.61	0	9	5	25	1	sw.	Do.
Coyote	....do	5,800	3								2.24	.....	0.85	0	11	17	6	8	sw.	Do.
Cundiyo	Santa Fe	6,889	3								1.02	.....	0.41	0	6	20	8	3	w.	J. Vigil.
Demonstration Farm	San Miguel	6,800	3								3.99	.....	1.48	0	9				.....	Erb & Westerman.
Duran	Torrance	6,272	3	71.9	.....	92	2†	54	5†	36	1.75	.....	0.80	0	6	11	17	3	.....	Agent E. P. & S. W. R. R.
Escondida	Otero	4,014	3								2.76	.....	0.90	0	10	23	6	2	se.	Do.
Espanola	Rio Arriba	5,590	14	69.8	− 1.4	94	12	44	7	47	1.10	− 0.60	0.31	0	8	18	9	4	s.	Mrs. E. F. McBride.
Estancia	Torrance	6,140	7																	George H. Van Stone.
Fort Stanton	Lincoln	6,231	35	68.0	+ 0.8	91	9†	48	22	40	4.90	+ 1.36	1.75	0	19	5	20	6	sw.	U. S. Sanitarium.
Fort Sumner	Guadalupe	3,960	4	75.7	.....	102	11	54	24†	42	1.69	.....	0.54	0	10	7	19	5	sw.	Peter Yocky.
Gallinas	Lincoln	6,635	3								3.93	.....	1.12	0	7	16	7	8	.....	Agent E. P. & S. W. R. R.
Gallinas Planting Sta	San Miguel	7,500	5	63.44	.....	86	11	44†	16	40	3.76	.....	1.23	0	11	12	16	3	sw.	U. S. Forest Service.
Glorieta Ranch	Socorro	5,700	2								2.97	.....	0.79	0	15	10	12	9	s.	C. M. Crossman.
Harveys Upper Ranch	San Miguel	9,400	3	58.0	.....	78	11	40	9	36	4.79	.....	1.54	0	16	20	8	3	e.	R. B. Schoonmaker.
Hillsboro	Sierra	5,224	14																.....	Dr. F. I. Givens.
Hodges	Taos	8,484	2																	A. J. Armstrong.
Hondo Reservoir	Chaves	3,904	3	77.2	.....	100	10	57	23	37	2.23	.....	0.44	0	12	11	15	5	s.	U. S. Reclamation Service.
Jemez Springs	Sandoval	6,100	2	67.4	.....	88	9	51	9†	37	2.01	.....	0.62	0	10	13	11	7	sw.	Mrs. L. L. Shields.
Knowles (near)	Eddy	4,300	2	78.6	.....	100	10†	58	24	38	1.29	.....	0.32	0	10	7	23	1	se.	J. W. Mosley.
Laguna	Valencia	5,840	7	73.0	.....	98	9	50	9	48	1.50	.....	1.50	0	1				.....	Gus Weiss.
Lagunita	Guadalupe	4,500	7	73.0	.....	96	12	48	16	37	2.08	.....	0.65	0	9	14	10	7	sw.	P. A. Turnbull.
Lake Valley	Sierra	5,412	7								4.00	.....	1.45	0	18	1	30	0	.....	Wm. P. Keil.
Lakewood	Eddy	3,170				99	29				0.61	.....	0.45	0	4	20	7	4	se.	Mrs. Josephine K. Boyd.
Las Vegas	San Miguel	6,385	25	65.2	− 2.5	89	2	45	7	42	4.20	+ 0.94	0.92	0	14	22	5	4	sw.	N. Mex. Normal University.
Liston	Chaves	5,000	2								1.03	.....	0.56	0	6	3	25	3	s.	H. G. Liston.
Los Lunas (near)	Valencia	4,900	23	72.4	− 1.6	97	6†	51	8	46	0.10	− 0.97	0.10	0	1	6	23	2	.....	R. Pohl.
Magdalena	Socorro	6,557	7	68.0	.....	93	8†	48	21	37	4.15	.....	0.52	0	15	8	21	2	w.	Wm. Pender.
Mescalero	Otero	6,627	1	64.6	.....	88	9†	48	8†	39	5.73	.....	1.28	0	19	9	12	10	sw.	Rev. R. H. Harper.
Mineral Hill	San Miguel	7,050	7								3.43	.....	0.86	0	7	0	28	3	sw.	W. M. Nelson.
Monterey	Otero	4,436	3			98	9	61	19	....	3.44	.....	1.45	0	9	15	14	2	.....	Agt. E. P. & S. W. R. R.
Mountainair	Torrance	6,547	10	69.5	+ 0.8	93	9	46	23	41	1.62	− 1.04	0.24	0	13	11	14	6	sw.	Miss Julia Hill.
Newman	Otero	3,989	3			102	9				5.36	.....	1.29	0	7	20	3	8	.....	Agt. E. P. & S. W. R. R.
Noria	Dona Ana	4,114	3					50	15†	....	4.16	.....	1.00	0	8	17	14	0	w.	Do.
Orogrande	Otero	4,171	3								4.33	.....	1.45	0	12	1	25	5	sw.	Do.
Oscura	Lincoln	5,016	3								3.85	.....	0.86	0	17				.....	E. F. Jones.
Otis	Eddy	3,100	3								1.50	.....	0.43	0	8	17	12	2	se.	A. M. Hove.
Otto	Santa Fe	6,200	3								2.79	.....	1.49	0	7				.....	Otto Goetz.
Pastura	Guadalupe	5,285	3			100	10	58	15†	....	2.29	.....	1.00	0	8	12	19	0	sw.	Agt. E. P. & S. W. R. R.
Placitas (near)	Bernalillo	8,000	1	61.7	.....	80	2†	43	15†	36	4.59	.....	1.10	0	13	11	20	0	w.	G. C. Ellis.
Plainview	Chaves	4,300	1																.....	L. P. Adair.
Red River Canyon	Taos	8,956	5	63.6	.....	90	5	34	24†	44	1.70	.....	0.50	0	6	17	13	1	e.	Mrs. L. R. Penn.
Rincon	Dona Ana	4,030	18	76.4	− 1.6	101	8	58	9	41	2.79	+ 0.08	0.89	0	6	1	23	7	sw.	C. H. Raitt.
Rio Grande Dam	Sierra	4,265	22	77.6	+ 0.8	102	8†	58	23	36	3.08	+ 0.49	1.65	0	8	10	14	7	sw.	U. S. Reclamation Service.
Rio Grande Industrial School.	Bernalillo	5,000	1	71.7	.....	96	6†	48	9†	48	0.58	.....	0.25	0	5	14	11	6	sw.	Rev. A. C. Heyman.
Rosedale	Socorro	6,910	7	65.0	.....	88	8	48	15	30	5.52	.....	1.08	0	16	8	18	5	w.	Mrs. J. J. McInness.
Roswell	Chaves	3,578	18	77.0	− 0.4	97	11	56	30	34	2.80	+ 1.34	1.70	0	10	9	20	2	s.	U. S. Weather Bureau.
San Marcial	Socorro	4,439	15	76.4	− 0.8	102	2	56	7†	42	1.99	− 0.33	1.02	0	12	4	20	7	se.	Agt. A., T. & S. F. R. R.
San Rafael	Valencia	6,509	15	68.4	.....	93	9	40	15	48	2.15	− 0.54	0.68	0	5	19	6	6	nw.	Dr. Chas. M. Grover.
Santa Fe	Santa Fe	7,013	39	67.2	+ 0.2	87	26	50	9	36	1.15	− 1.21	0.38	0	11	13	15	3	se.	Section Center.
Santa Fe Canyon	....do	8,000	2								2.79	.....	1.23	0	10	12	18	1	e.	Mrs. E. M. Gregory.
Santa Rosa	Guadalupe	4,624	11	75.4	.....	99	10†	56•	22†	40	1.04	− 2.08	0.39	0	7	11	11	9	w.	H. V. B. Smith.
Senorito (near)	Sandoval	7,500						30	9	....	2.58	.....	1.40	0	13	9	17	5	w.	Jas. Curry.
Socorro	Socorro	4,600	20	78.6	+ 2.4	99	6†	53	24	44	2.39	+ 1.00	0.90	0	9	25	0	6	ne.	J. J. Leeson.
South Fork	Taos	8,405									2.48	.....	0.50	0	8	17	3	11	.....	Frank Hamm, jr.
Stanley	Santa Fe	6,317	3	67.0	.....	92	2	45	2	47	3.57	.....	1.23	0	11	10	20	1	w.	Geo. R. Camp.
Strauss	Dona Ana	4,080	13								5.24	+ 3.36	1.57	0	14	4	19	8	e.	Agt. So. Pac. R. R.
Tajique (near)	Torrance	9,820	2								3.79	.....	1.33	0	13	17	6	8	.....	A. Rea.
Taos	Taos	6,983	17	66.4	− 1.0	93	3	46	9†	47	0.95	− 0.89	0.26	0	8	22	9	0	w.	Alex. Gusdorf.
Taos Canyon	....do	8,959	3								1.75	.....	0.54	0	12				.....	L. Martinez, jr.
Tecolote	Lincoln	6,539	3	69.2	.....	90	7	54	22†	28	1.27	.....	0.37	0	8	10	9	12	se.	Agt. E. P. & S. W. R. R.
Three Rivers	Otero	4,559	3	.....	.....	99	11	.....	.....	....	4.13	.....	1.15	0	11	12	16	3	.....	Do.
Tijeras Canyon	Bernalillo	6,214	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.

TABLE 1.—*Climatological data for August, 1912. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New Mexico—Con.																				
Torrance	Torrance	6,433	3	.....	.....	88	25	46	29	....	3.35	.....	0.75	0	11	16	12	3	se.	Agt. E. P. & S. W. R. R.
Tres Piedras	Taos	8,076	9	61.0	.....	85	26	37	9	47	1.09	− 0.79	0.57	0	5	20	0	11	w.	U. S. Forest Service.
Truchas	Rio Arriba	7,935	3	61.8	.....	81	8	41	16	34	2.34	.....	0.87	0	12	7	21	3	sw.	Miss Myrtle Rendon.
Tularosa	Otero	4,436	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. L. Fairless.
Vaughn	Guadalupe	5,952	3	.....	.....	92	10†	54	17	....	2.08	.....	0.55	0	10	11	11	9	ne.	Agt. E. P. & S. W. R. R.
Virsylvia	Taos	7,500	2	68.6	.....	87	7†	43	8	35	2.36	.....	0.83	0	7	22	9	0	sw.	Dr. I. N. Woodman.
Winsors	San Miguel	8,200	16	58.2	− 0.3	82	3	32	9†	48	3.54	− 0.03	0.90	0	12	8	22	1	sw.	James F. Matty.
Texas.																				
Abilene	Taylor	1,738	27	84.1	+ 2.9	100	8	64	9	30	2.81	+ 0.84	1.45	0	7	18	12	1	s.	U. S. Weather Bureau.
Albany	Shackelford	1,429	18	83.6	+ 0.8	103	28	64	8†	36	4.38	+ 2.68	3.35	0	4	22	6	3	.....	N. L. Bartholomew.
Alice	Jim Wells	209	1	86.8	.....	102	4†	70	28	30	0.18	.....	0.18	0	1	24	7	0	se.	R. M. Boerum.
Alpine	Brewster	4,482	2	.....	.....	.....	.....	.....	.....	.....	0.30	.....	0.30	0	1	.....	.....	.....	.....	H. B. Cowles.
Alvin	Brazoria	49	14	82.4	.....	98	1	60	28	32	7.74	+ 3.62	4.48	0	5	1	16	14	s.	Alvin Japanese Nursery.
Anahuac	Chambers	23	3	.....	.....	.....	.....	.....	.....	.....	3.10	.....	1.05	0	9	.....	.....	.....	.....	Lone Star Canal Co.
Antelope	Jack	.....	1	.....	.....	.....	.....	.....	.....	.....	5.08	.....	2.09	0	7	20	7	4	.....	Paul Rudolph.
Aspermont	Stonewall	.....	1	.....	.....	.....	.....	.....	.....	.....	2.46	.....	0.91	0	5	23	4	4	s.	Bryant Link Co.
Austin	Travis	593	56	86.5	+ 2.9	101	3	73	23	24	0.31	− 2.10	0.27	0	2	18	9	4	se.	A. Deussen.
Ballinger	Runnels	1,637	16	85.0	+ 2.4	108	1	60	11	40	1.16	− 1.16	1.16	0	1	23	4	4	s.	E. M. Eubank.
Barstow	Ward	2,573	5	84.2	.....	108	1†	66	14†	35	1.95	.....	0.72	0	7	11	1	19	e.	Lee F. Freeman.
Bay City	Matagorda	53	2	83.9[d]	.....	96	28	72	6†	22	1.74	.....	0.90	0	8	5	12	14	s.	E. C. Quereau.
Beaumont	Jefferson	29	11	82.6	+ 0.4	97	23	69	17	23	6.33	+ 2.01	1.53	0	12	12	0	19	se.	John Bender.
Beeville	Bee	225	16	86.0	+ 1.2	102	21	72	19†	29	0.91	− 1.70	0.64	0	2	19	7	5	se.	L. E. Dickey.
Big Springs	Howard	2,396	14	85.2	+ 1.5	107	1	64	2	41	1.04	− 0.72	0.52	0	5	7	24	0	se.	B. Reagan.
Blanco	Blanco	1,350	16	86.2	+ 3.9	105	4	70	16†	32	1.06	− 0.84	0.98	0	3	23	8	0	s.	R. C. Crist.
Boerne	Kendall	1,412	20	84.2	+ 3.6	103	10	63	15	34	0.86	− 1.34	0.55	0	3	17	14	0	se.	F. W. Schweppe.
Booth	Fort Bend	81	11	.....	.....	.....	.....	.....	.....	.....	2.53	− 0.91	0.67	0	9	29	0	2	se.	T. R. Booth.
Bowie	Montague	1,113	17	83.0	− 1.6	104	2	63	5	31	5.14	+ 3.45	2.07	0	7	19	4	8	s.	Craig Anderson.
Brady	McCullough	1,500	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. W. Griffin.
Brazoria	Brazoria	25	23	83.9	+ 2.7	97	27	71	17	23	3.01	− 2.12	1.20	0	14	26	5	0	s.	Mrs. M. A. Stevens.
Brazos	Palo Pinto	801	3	.....	.....	.....	.....	.....	.....	.....	8.90	.....	6.30	0	5	16	10	5	sw.	Robt. E. Boyett.
Brenham	Washington	350	27	86.5	+ 2.7	101	10†	69	15	27	0.33	− 2.38	0.31	0	2	23	4	4	se.	Mrs. B. F. Sloan.
Bridgeport	Wise	754	3	.....	.....	.....	.....	.....	.....	.....	5.73	.....	2.66	0	8	17	4	10	s.	Claude Strange.
Brighton	Nueces	12	19	85.4	+ 2.4	99	22	70	1	25	0.00	− 1.68	0.00	0	0	31	0	0	se.	G. H. Ritter.
Brownsville	Cameron	38	48	84.0	+ 0.3	96	21†	70	28	26	0.12	− 2.68	0.06	0	5	.....	.....	.....	se.	U. S. Weather Bureau.
Brownwood	Brown	1,342	20	83.8	− 0.1	107	3	64	9†	36	4.92	+ 2.96	1.50	0	7	16	14	1	s.	Mrs. Pearl Smith.
Buena Vista	Pecos	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.81	.....	0.68	0	6	.....	.....	.....	.....	W. H. Denis.
Cameron	Milan	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. E. Watts.
Carmona	Polk	330	4	82.0	.....	99	20	64	6	31	2.18	.....	1.39	0	5	7	23	1	s.	M. S. Spitler.
Carrizo Springs	Dimmit	.....	.....	89.6	.....	105	19	74	4†	27	0.00	.....	0.00	0	0	26	4	1	se.	M. E. Cook.
Claytonville	Fisher	2,100	17	82.2	+ 1.5	99	28	61	22	30	1.08	− 0.83	0.75	0	3	15	4	12	e.	William Lanius.
Clifton	Bosque	671	1	.....	.....	.....	.....	.....	.....	.....	3.34	.....	1.37	0	5	2	28	1	s.	R. M. Jones.
Coleman	Coleman	1,710	18	86.1	+ 5.7	107	3	67	22	35	1.61	− 1.47	0.63	0	4	3	27	1	s.	J. E. Stevens.
Collegeport	Matagorda	.....	.....	83.2	.....	96	17†	68	15	24	.....	.....	.....	.....	.....	4	26	1	se.	H. A. Clapp.
College Station	Brazos	308	22	85.8	+ 2.6	101	3†	68	15	31	0.21	− 1.93	0.16	0	5	11	7	13	s.	Prof. G. S. Fraps.
Colorado	Mitchell	2,066	18	85.6	+ 3.2	104	1†	68	16†	35	2.92	+ 0.85	1.45	0	4	27	1	3	.....	R. M. Webb.
Columbia	Brazoria	34	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. B. Loggins.
Columbus	Colorado	206	8	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.84	0	3	21	5	5	s.	Mrs. Sophie Bridge.
Corpus Christi	Nueces	20	25	83.1	+ 1.0	96	23	76	29	14	0.04	− 2.24	0.02	0	2	28	3	0	se.	U. S. Weather Bureau.
Corsicana	Navarro	445	23	84.0	+ 0.6	99	21	65	7	29	3.47	+ 1.51	1.90	0	7	17	7	7	s.	D. H. Winn.
Cotulla	La Salle	425	5	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0	0	.....	.....	.....	.....	Holland Agricultural Co.
Crockett	Houston	350	8	85.4	.....	103	21	68	6	33	1.03	.....	0.40	0	8	16	15	0	s.	A. M. Rencher.
Cuero	De Witt	177	22	87.8	+ 2.9	104	1†	71	20	30	2.00	+ 0.15	0.95	0	4	25	4	2	s.	H. R. Frobese.
Dallas	Dallas	466	23	82.9	− 0.6	102	21†	65	6†	30	6.16	+ 3.12	3.02	0	8	17	0	14	s.	G. A. Eisenlohr.
Danevang	Wharton	145	16	85.0	+ 1.4	100	4†	70	4†	30	2.45	− 0.94	1.35	0	5	27	3	1	se.	H. P. Hermansen.
Del Rio	Valverde	952	6	88.6	+ 4.6	106	1	74	17	27	0.17	− 2.52	0.17	0	1	20	11	0	se.	U. S. Weather Bureau.
Devine	Medina	653	2	88.2	.....	104	5†	73	16	30	T.	.....	T.	0	0	29	2	0	se.	M. A. Keller.
Dialville	Cherokee	575	8	82.8	.....	99	2	65	6	26	4.75	.....	3.75	0	3	11	17	3	s.	J. M. B. McKnight.
Dilley	Frio	569	2	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0	0	.....	.....	.....	.....	John W. Miller.
Dublin	Erath	1,466	16	84.5	+ 1.4	104	20†	66	6†	32	2.49	+ 0.55	1.35	0	6	6	21	4	s.	John O. Shafer.
Duval	Travis	820	23	85.4	+ 1.1	99	2†	71	26	25	1.95	+ 0.23	1.95	0	2	19	11	1	se.	J. C. Edgar.
Eagle Pass	Maverick	800	35	89.8	+ 3.0	106	1	74	15†	30	0.00	− 2.59	0.00	0	0	24	7	0	se.	Charles Tarver.
Eastland	Eastland	1,420	5	82.2	.....	104	21†	57	19	42	4.00	.....	2.05	0	4	10	16	5	se.	James A. Beard.
Edna	Jackson	71	3	.....	.....	.....	.....	.....	.....	.....	2.44	.....	1.80	0	2	.....	.....	.....	.....	E. L. Faires.
El Paso	El Paso	3,762	33	77.8	− 0.8	100	8	61	30	30	2.83	+ 1.11	0.60	0	17	9	20	2	e.	U. S. Weather Bureau.
Encinal	La Salle	558	4	86.2	.....	104	3†	70	2†	31	0.00	.....	0.00	0	0	20	11	0	se.	Walter Pettit.
Eola	Concho	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. W. Neal.
Fairland	Burnet	1,000	23	86.8	+ 4.0	105	3†	70	9†	34	0.92	− 1.15	0.70	0	3	27	4	0	se.	R. L. Bush.
Falfurrias	Brooks	.....	4	87.2	.....	105	22	67	29	36	T.	.....	T.	0	0	31	0	0	se.	W. A. Gardner.
Flatonia	Fayette	465	4	85.6	.....	102	3	70	13†	29	0.92	.....	0.71	0	5	11	17	3	s.	Fred W. Laux.
Flint	Smith	483	2	82.4	.....	101	21	65	5†	29	3.99	.....	2.17	0	7	17	7	7	sw.	F. C. C. Carter.
Fort Clark	Kinney	1,050	41	84.2	+ 0.2	102	1	70	22	29	0.10	− 1.82	0.10	0	1	26	5	0	se.	Post Hospital.
Fort Davis	Jeff Davis	5,000	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. J. Dumble.
Fort McIntosh	Webb	460	44	90.6	+ 3.9	108	1†	72	20	32	0.00	− 2.71	0.00	0	0	14	12	5	e.	Post Hospital.
Fort Stockton	Pecos	3,050	15	83.2	+ 3.8	106	8	65	22†	37	1.89	− 0.41	0.72	0	6	0	31	0	se.	H. H. Butz.
Fort Worth	Tarrant	670	17	82.0	− 0.9	102	3	65	6	28	6.56	+ 4.69	3.14	0	8	14	12	5	s.	U. S. Weather Bureau.
Fredericksburg	Gillespie	1,742	23	84.2	+ 3.7	101	9	68	25	29	0.84	− 1.52	0.84	0	1	20[e]	8[e]	0[e]	s.	Arthur Striegler.
Gainesville	Cooke	738	22	83.0	+ 0.7	101	2	65	8	27	4.27	+ 2.09	2.60	0	4	.....	.....	.....	.....	J. L. Hickson.
Galveston	Galveston	69	41	83.8	+ 1.2	90	4	70	14	16	1.59	− 3.42	0.57	0	9	15	15	1	s.	U. S. Weather Bureau.
Gatesville	Coryell	795	8	85.4	.....	104	1	69	7	28	0.35	.....	0.15	0	3	25	6	0	.....	John Ryan.
Georgetown	Williamson	750	17	86.0	+ 2.9	104	4†	69	28	33	1.07	− 0.29	0.84	0	3	27	3	1	s.	Prof. R. F. Young.
Gonzales	Gonzales	299	7	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.96	0	3	18	10	3	s.	J. M. Johnson.
Gorham	McLennan	444	3	.....	.....	.....	.....	67	8	.....	1.76	.....	1.32	0	3	11	15	5	s.	John Gorham.
Graham	Young	1,040	13	85.7	+ 2.2	103	2†	63	2	40	5.40	+ 2.71	2.16	0	6	20	11	0	s.	C. W. Johnson.
Grand Falls	Ward	.....	2	.....	.....	.....	.....	.....	.....	.....	0.35	.....	0.35	0	1	3	28	0	.....	W. A. White.
Grand Saline	Van Zandt	399	2	.....	.....	.....	.....	.....	.....	.....	3.47	.....	1.40	0	7	13	13	5	s.	Jas. Kirk.
Grapevine	Tarrant	670	22	82.4[d]	+ 1.8	101	3	64	6	31	5.26	+ 3.61	2.05	0	6	10[d]	12[d]	5[d]	s.	W. J. Crowley.
Greenville	Hunt	550	12	82.8	− 1.7	104	3	62	6	32	8.80	+ 6.49	4.50	0	8	19	0	12	s.	Mrs. L. A. Regan.
Halletsville	Lavaca	235	20	86.8	+ 2.9	101	2†	73	15†	26	1.20	− 0.78	1.20	0	1	19	11	1	s.	Dr. J. E. Lay.
Hamlin	Jones	1,685	1	.....	.....	.....	.....	.....	.....	.....	2.74	.....	2.10	0	4	.....	.....	.....	.....	W. S. Carruthers.
Harlingen	Cameron	37	1	86.1	.....	100	3†	71	31	29	0.60	.....	0.50	0	3	12	19	0	se.	Lindsay Waters.
Harper	Gillespie	.....	1	.....	.....	.....	.....	.....	.....	.....	0.43	.....	0.38	0	2	10	0	21	.....	Christian Fritz.
Haskell	Haskell	1,553	17	83.8	− 0.7	102	3	66	8	30	3.51	+ 1.99	1.15	0	6	17	13	1	se.	P. D. Sanders.
Hebbronville	Duval	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Henry Edds.
Hempstead	Waller	254	8	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.46	0	4	17	0	14	s.	J. H. Hancock.

TABLE 1.—*Climatological data for August, 1912. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Continued.																				
Henderson	Rusk	500	3								5.01		2.70	0	7	15	9	7		M. Kangerga.
Hewitt	McLennan	664	17								1.50	− 0.15	1.04	0	4					I. H. Earle.
Hico	Hamilton		1								5.25		3.60	0	8	16	7	8	s.	John A. Eakins.
Hillsboro	Hill	628	9	86.1		103	22	65	6†	34	3.50		2.40	0	5					W. G. Escott.
Hondo	Medina	901	13	87.1		102	1	72	28	27	0.25	− 1.42	0.25	0	1	24	6	1	se.	H. E. Haass.
Houston	Harris	138	22	83.6	+ 0.7	96	22	70	17	21	2.59	− 1.34	2.12	0	11	6	18	7	se.	U. S. Weather Bureau.
Huntsville	Walker	400	28	83.4	+ 0.2	99	2	63	6	27	2.32	− 0.06	1.32	0	2	21	0	10	se.	W. Y. Barr.
Jayton	Kent		2								2.70		1.00	0	3	26	0	5	s.	Wichita Valley Ry. Co.
Jewett	Leon	496	8	85.6		104	28	62	21	39	0.80		0.80	0	1	18	10	3	s.	Earle Adkisson.
Junction	Kimble	1,645	11	86.0		104	3†	68	5	34	0.00	− 1.88	0.00	0	0	28	2	1	s.	Judge John S. Durst.
Kaufman	Kaufman	448	13	84.4	− 0.6	103	3	65	6	31	3.35	+ 0.60	2.06	0	3	18	9	4	e.	B. J. Hubbard.
Kerrville	Kerr	1,650	16	84.2	+ 3.3	101	1	63	28	35	0.16	− 1.70	0.16	0	1	14	15	2	s.	Robert E. Horne.
Killeen	Bell			88.8		109	15	69	13†	38	0.77		0.77	0	1	15	7	9	s.	J. E. Root, jr.
Knickerbocker	Tom Green	2,050	8	85.8		106	1†	65	10†	38	3.20		3.00	0	3	19	11	1	se.	Jos. Tweedy.
Kopperl	Bosque	576	15								3.35	+ 1.52	2.17	0	4	20	3	8	s.	T. A. Johnson.
Lagrange	Fayette	276	2								3.81		3.27	0	5	12	11	8	se.	August Hermes.
Lamesa	Dawson	2,500	2								2.48		1.10	0	7					S. D. Austin.
Lampasas	Lampasas	1,026	20	89.0	+ 6.2	105	1	71	28†	28	0.91	− 0.95	0.46	0	3	24	2	5	s.	Mrs. K. I. Webber.
La Parra	Willacy	38	10								0.00	− 2.27	0.00	0	0					Jno. G. Kenedy.
Laureles Ranch	Nueces	20	12																	Matt Cody.
Liberty	Liberty	38	8	81.6		95	4†	68	15	24	5.50		1.70	0	9	18	10	3	ne.	Mrs. Fannie Sneed.
Llano	Llano	1,040	21	87.9	+ 3.6	104	2	73	9†	27	0.12	− 1.23	0.06	0	2	24	7	0	se.	E. W. Torrence.
Llano Grande	Hidalgo	86	4	83.0		100	1†	65	1†	35	0.06		0.06	0	1	31	0	0	se.	M. D. Wardlow.
Long Lake	Anderson	229	7								1.42		0.70	0	3	10	10	11	s.	Geo. W. Ellis.
Longview	Gregg	336	26	82.2	− 1.2	98	3†	65	5	27	15.28	+13.44	5.81	0	6	21	1	9	se.	C. A. Propst.
Lubbock	Lubbock		1								2.37		0.79	0	9	5	20	6	se.	A. L. Paschall.
Lufkin	Angelina	325	5	83.0		100	11	65	5†	28	3.09		0.85	0	9	17	7	7	s.	T. A. King.
Luling	Caldwell	418	23	87.2	+ 3.2	102	3†	74	13†	27	0.46	− 1.47	0.20	0	3	14	12	5	se.	John Carter.
McGregor	McLennan	713	2								0.00		0.00	0	0	28	3	0	s.	W. H. Whitley.
McKinney	Collin	612	10	81.4		101	2	63	5	28	5.53	+ 3.75	2.29	0	8	18	8	5	se.	H. Killingsworth.
Marathon	Brewster	4,043	2	74.8		95	1†	57	18	30	2.28		1.10	0	6	5	14	12	s.	Rev. A. P. Willis.
Marble Falls	Burnet	771	4								1.31		0.80	0	3	19	5	7	s.	R. H. Cochran.
Marfa	Presidio		4																	R. K. Colquitt.
Marshall	Harrison	375	11	81.0		98	3	60	5	28	8.52	+ 5.91	5.25	0	8	1	26	4	s.	Lee Scott.
Matagorda	Matagorda	12	2								0.99		0.26	0	5	28	3	0	s.	W. E. McNabb.
Mexia	Limestone	537	8	84.2		104	3	65	7	33	3.64		3.10	0	5	10	16	5	s.	Mrs. Josephine Newman.
Midland	Midland		5	83.8		106	1	64	10	40	1.07		0.40	0	6	11	20	0	se.	J. Harvey Clark.
Mission	Hidalgo	140	2	86.1		101	20†	71	29	29	T.		T.	0	0	12	19	0	se.	Myron J. Conway.
Mont Belvieu	Chambers	65	2								5.49		1.19	0	10	2	26	3	se.	A. R. Shearer.
Mount Blanco	Crosby	2,750	23	78.6	+ 0.6	99	1	59	30	36	4.05	+ 1.50	2.05	0	5	11	7	13	s.	Geo. W. Smith.
Nacogdoches	Nacogdoches	271	13	80.6	− 1.4	96	27†	65	5	29	2.30	− 0.11	1.03	0	5	18	5	8	s.	Miss Mary Hofmann.
New Braunfels	Comal	720	23	85.6	+ 3.3	99	1†	70	28	26	T.	− 2.35	T.	0	0	18	12	1	s.	J. Giesecke.
Palestine	Anderson	510	30	82.4	+ 1.9	96	21	66	6	25	0.46	− 1.76	0.42	0	3	11	18	2	s.	U. S. Weather Bureau.
Panter	Hood	1,000	23								3.76	+ 1.40	2.60	0	7					E. H. Snider.
Pearsall	Frio	629	2								0.00		0.00	0	0					Earnest De Vilbiss.
Pierce	Wharton	102	6	83.8		100	21	70	15†	29	2.00		0.70	0	6	6	0	25	se.	R. B. Pointer.
Plainview	Hale	3,370	16	77.2	+ 0.4	98	28	59	7†	36	2.94	+ 0.50	0.72	0	9	14	17	0	s.	J. F. Sander.
Port Arthur	Jefferson		1								4.00									Griffing Bros. Co.
Port Lavaca	Calhoun	20	11	86.2	+ 2.4	98	1†	74	14	23	T.	− 3.25	T.	0	0	31	0	0	se.	J. H. Bickford.
Post City	Garza	2,700	2																	W. T. Mann.
Putman	Callahan	1,591	1								3.30		2.00	0	3	27	3	1	e.	S. M. Davis.
Raymondville	Cameron		1								T.		T.	0	0	25	6	0	se.	C. H. Pease.
Ricardo	Nueces	57	3																	P. L. Shaffer.
Riverside	Walker	169	8								3.00		1.40	0	4	28	0	3	s.	Mrs. C. W. Higdon.
Rockland	Tyler	136	8								2.70		1.40	0	4	12	9	10	s.	Mack Dunkin.
Rockport	Aransas	12	11	83.0	+ 0.6	89	3†	76	11†	10	0.20	− 3.08	0.20	0	1	27	3	1	se.	Mrs. G. Grewe.
Rossville	Atascosa	558	5	88.1		104	3	70	25	31	0.10		0.10	0	1	10	21	0	se.	W. F. M. Ross.
Runge	Karnes	308	17								0.00	− 1.40	0.00	0	0					Reiffert & Frob sc.
Sabinal	Uvalde	964	8	86.4		105	1	72	11†	30	0.00		0.00	0	0	5	19	7	se.	Jas. Johnston.
Salado	Bell		2								0.80		0.46	0	2	13	8	10	s.	L. M. Crockett.
San Angelo	Tom Green	1,847	21	86.8	+ 4.7	109	2	67	10	34	2.90	+ 0.01	1.50	0	3	22[a]	4[a]	4[a]	s.	Sam Crowther.
San Antonio	Bexar	701	27	86.0	+ 4.0	100	4	70	16	26	0.29	− 2.40	0.24	0	3	20	11	0	se.	U. S. Weather Bureau.
San Augustine	San Augustine	360	3	81.6		98	20	62	5	30	2.95		0.74	0	7	10[a]	10[a]	10[a]		F. A. Wilson.
San Juanito	Hidalgo		3	88.8		104	4	72	19†	30	0.00		0.00	0	0	2	2	27	se.	J. B. McAllen.
San Marcos	Hays	588	19	84.9	+ 1.6	99	4	65	18	29	0.12	− 1.56	0.07	0	2	19	0	12	e.	Miss L. C. Ford.
San Saba	San Saba	1,712	11	85.2	+ 1.9	105	3	65	9	31	0.39	− 0.50	0.25	0	2	23	7	1	s.	Jas. Burns.
Santa Gertrudes	Nueces		12																	J. B. Wright, jr.
Sealy	Austin	201	1								2.13		0.94	0	5	8	12	11	s.	O. H. Albert.
Seymour	Baylor	1,320	6	84.8		103	26†	65	7	31	2.81		1.17	0	4	18	0	13	ne.	S. C. Lee.
Snyder	Scurry		1	82.1		103	1	62	10	38	0.76		0.35	0	6	17	11	3	se.	J. Allen Weaver.
Somerville	Burleson	251	3	86.4		103	1†	70	17†	30	0.75		0.50	0	2	27	4	0	s.	Ed. Herbst.
Sonora	Sutton	2,200	8																	H. Thiers.
Spur	Dickens	2,300	1	81.4		102	2	62	9†	36	1.66		0.55	0	6	14	15	2	se.	J. D. Reagan.
Stamford	Jones		1	80.9		101	3	62	9†	30	6.95		2.42	0	6	20	7	4		H. Pratt.
Stowell	Chambers		1								5.70		1.15	0	8	9	8	14	s.	Arthur Bailey.
Sugarland	Fort Bend	79	11	84.6	+ 1.9	100	4	70	17	26	0.34		0.20	0	3	17[b]	10[b]	2[b]	se.	Paul C. Rudat.
Sutherland Springs	Wilson	424	2								1.00		1.00	0	1					L. V. Bigham.
Taylor	Williamson	583	11	84.8	+ 3.1	99	3	71	16	25	0.75	− 1.72	0.52	0	5	12	19	0	s.	U. S. Weather Bureau.
Temple	Bell	630	22	85.6	+ 2.8	100	3†	71	2†	26	1.58	− 0.34	0.74	0	6	23	5	3		W. Goodrich Jones
Theodore	Winkler		2								0.50		0.27	0	3					W. B. Oates.
Thurber	Erath		2								3.70		2.25	0	7					J. K. Ball.
Tivoli	Refugio		2								0.00		0.00	0	0					W. H. Gisler.
Uvalde	Uvalde	937	17																	F. M. Getzendaner.
Valentine	Jeff Davis	4,421	6	75.8		101	10	58	30	39	4.44		0.92	0	11	11	17	3	se.	Valentine Development Co.
Valley Junction	Robertson	289	12								0.69	− 1.31	0.69	0	1	26	3	2	s.	Frank Fitzpatrick.
Victoria	Victoria	187	13	87.4[b]	+ 3.4	104	5†				0.88	− 2.00	0.50	0	3	22	9	0		C. C. Zirjacks.
Waco	McLennan	424	23	87.0	+ 1.9	101	3†	70	7	25	1.38	− 1.26	0.90	0	2	19	1	11	s.	E. H. Hall.
Waxahachie	Ellis	556	15	84.2	0.0	103	3†	65	6†	31	3.94	+ 2.05	2.58	0	6	19	4	8	s.	C. D. Longserre.
Weatherford	Parker	864	23	82.2	− 0.2	101	2†	66	8	29	6.77	+ 4.70	3.28	0	9	21	4	6	n.	Miss J. Stickfort.
Wills Point	Van Zandt	524	7	84.6		108	23	64	6	37	6.20		3.30	0	5	16	11	4	se.	W. W. Gibbard.
Winters	Runnels		1																	Ed. P. Eason.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 8, Texas and Rio Grande Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Colorado.																																	
Blanca	Rio Grande					.02									1.05				T.			.24								.18		.05	1.54
Cumbres	do						.17	.02						.22	.60													T.	T.		.24		1.25
Garnett	do																																
Hermit	do	T.		.05		T.		T.					T.	T.	1.04	.05	T.	T.		.28	.09	T.	T.				T.	T.	T.	T.	.25	T.	1.76
La Veta Pass	do																																
Manassa	do				T.										.60	.02		.03										T.			.23	.05	0.93
Platoro	do	.14				.03									.60	.09		.05		.13	.22	.08	.03	.04	.04	T.				T.	.25	.11	1.81
Saguache	do														1.30	.25	T.	T.	.15			T.									T.	.95	2.65
San Luis	do	.04											T.		.50	.29		.13			.12				.02			.03	T.	.19	.32		1.64
Wagon Wheel Gap Experiment Sta.	do	.02			.08	.02	T.			.01		T.	.01	.08	.45	.15	T.	.07		.17	T.						T.		.04	.02	.20	.02	1.44
New Mexico.																																	
Agricultural College	Rio Grande		.13		.20		T.						.35	.01		.69	.03		.73	.06	.15			.13	1.14			.98		.01		.43	5.04
Alamogordo (near)	do	.01				.32								.21		.87		.94		.14		1.35			T.				T.	.08	.19		4.11
Alamogordo	do	T.	T.			.24	T.							.12		1.03		1.00		.18		1.40			T.	.10					.24	T.	4.31
Alamos Ranch	do				.30										.77							.93						.40	T.	.50	.20	.10	3.20
Albuquerque	do													.16	T.	.11		.06		.03		.09					.18						0.63
Ancho	do													.05		1.12	.12	.21		1.25							.22			.80		T.	3.77
Anchor Mine	do													.10	.20	.30	.10	.20	.02		.20	.02	.10	.20					.20	.50	.30	.10	2.54
Artesia	Pecos						.18		T.						.20	T.					.20											T.	0.58
Aspen Grove Ranch	Rio Grande				.59								.61	.21	.12	.01	.34		.21		.10					.01		.04	.01	.05	.04	.31	2.64
Banks	Pecos																																
Batemans Ranch	Rio Grande	.45			T.									.50		.22		.20				.05											1.42
Berino	do		.18			.57							*	.55	.10	.90	.02		1.80	.82	T.	.38	.05	.23	.83			.62					7.05
Bluewater	do			T.	.13							.03			.48			T.	T.	.10			.05				.05	.64		.20		.10	1.78
Boaz	Pecos	.26	.02	.11	.10	2.25		.15							.14	.05	.13					.12	.02					.06	.02			.10	3.53
Capitan	do			.80				.05	.05	.07		.05						.80	.04		.04	.03	.01				.87	T.			.73	3.54
Carlsbad	do			.35									.07	.53	.05		.25	T.	T.	.05		.05				T.	.05			.42	.11	1.93
Carrizozo	Rio Grande				.17	.28	.80	.30								.70		.25			.33				.14		.33			.40	.37	4.07
Cerrillos (near)	do	T.	T.	T.	.20								T.	.23	.40	.17	T.	.20		T.		.39	T.	.06	T.					.46	.03	T.	2.14
Chama	do	T.			T.		T.							T.	1.30	.08	.08					T.								.10	.60	.20	2.36
Cloudcroft	Pecos	.01	.09	.21	.14	.30								.17	.26	.80	.43	.91	.19	.49	.50	.34	.02		.40	.05	.85	.08	.01	.10	.50	.10	6.95
Corona	do				.50									T.	.05	.56		.12	.24	.16		.30					.07			.55			2.55
Coyote	Rio Grande				.06	.03								.14		.85	.07		.21	.45	.05						.30			.03	.05		2.24
Cundiyo	do	.10													.09		.06										.41			.16	.20		1.02
Demonstration Farm	Pecos			.35	.24									.41	.52			.16		1.48	.60								.18	.05			3.99
Duran	do		T.		.25	.10	T.						T.	T.	.80	.10	T.	.40	T.	T.	T.	.10					T.				T.		1.75
Escondido	Rio Grande			.03	.23									.12	*	.90				.65	.05				.11		.42					.25	2.76
Espanolo	do													.04	.16	.23	.04		.22											.04	.06	.31	1.10
Estancia	do																																
Fort Stanton	Pecos	.08	.20	T.	.02	.05	.16				T.	.12	.03	.21	.09	.77	.56	.10	T.	.10	.15	.02	T.		.10		1.75				.37	.02	4.90
Fort Sumner	do			.03								.02		.26	.22	.22		.54			.04	.23								.11		.02	1.69
Gallinas	do				.52							T.	T.		.40	.52	1.12			.30		.47			T.						.60		3.93
Gallinas Planting Station	do			.20	.61	T.								.10	1.23	.10	.25	.04		.54		.25		.30	T.				T.		.14		3.76
Glorieta Ranch	Rio Grande		.02	.04	.25					T.				.30		.04		.10	.20	.11	.12				.32			.50	.03	.09	.79	.06	2.97
Harveys Upper Ranch	Pecos			.20	.30	.07							.01	.13	1.54	.12	.56	T.		.40	.53	.35	T.	.24	.02				.02	.05	.25	T.	4.79
Hillsboro	Rio Grande																																
Hodges	do																																
Hondo Reservoir	Pecos	.11	T.	.06	.02	.77								.14	.44	.25		T.	.17		.05	.07			T.		T.	.12			T.	.03	2.23
Jemez Springs	Rio Grande				T.							T.		*	.55	.15		T.		.05				T.	.03	.55	*	.06		T.	*	.62	2.01
Knowles (near)	Pecos	.12	.18	.08	.24	T.			T.	T.		T.		.24	.10	T.		T.	T.	T.		.04	.20		.06	.03	T.					T.	1.29
Laguna	Rio Grande														T.	1.50																	1.50
Lagunita	Pecos		.17		.09	.14							.04		.65			.25			.52						.14			.08		2.08
Lake Valley	Rio Grande		T.	.07	.02						.04		.12	.35	(*)	1.45	.03		.06	.02	.02	.10		.22	.07	.07			.93	.13	T.	.30	4.00
Lakewood (near)	Pecos																						.06					.56		.10	.08	.37		0.61
Las Vegas	do			.75	.10	.04	T.							.10	.62	.11	.05	.18		.31	.69	.65	.27							.13	T.	.20		4.20
Liston	do			.03	.18									.06			.12	.08															1.03
Los Lunas (near)	Rio Grande																										.10						0.10
Magdalena	do											T.	.25	.05	.20	.10	.50	.03	T.	T.	.25	.02	T.			.50	.48	.40	.52	.50	.25	.10	4.15
Mescalero	do		.02	.19	.11	.01	.02						T.	.09	.01	1.28	.50	.51	.01	.19	.32	.20			.87		.62	.20		T.	.54	.04	5.73
Mineral Hill	Pecos			T.	.65							.38	.76	.02	.16			.60			.86								T.				3.43
Monterey	Rio Grande				.64	.17							.07			.25	.30				.04	1.45			T.		.32			.20			3.44
Mountainair	do		.15	.05	.04						.05				.28	.08	.15	.18	.04	.18	.10		.12							.24			1.62
Newman	do					.76								.12	.90	.31					T.	.98			1.29	1.00							5.36
Noria	do			.14										.38		1.00	.14			1.00	.50	.50		.50									4.16
Orogrande	do	T.	.32		.50									.09	1.45	.68			.08	.50	.03	.17		.05	.37						.09		4.33
Oscura	do			.10	.03	.10	.35							.30	.04	.86		.17		.30	.45	.12	.21		.07	.03			.08		.63	.01	3.85
Otis	Pecos		T.		.06	.11							.18	T.	.43	T.	.43	T.	T.	.05		T.						.17		T.	T.	.07	1.50
Otto	Rio Grande				.57									.03	1.49		T.	.02		.54					.07				T.	.07		T.	2.79
Pastura	Pecos	.03												.10	.32	.16	.10	.05									.50				.08		2.29
Placitas (near)	Rio Grande					1.10								.16	.58	.39	.44	.05		.76	.04	.20	.11							.24	.46	.06	4.59
Plainview	Pecos																																
Red River Canyon	Rio Grande		.20	T.											(*)	.50						.30					.50	T.		.20			1.70
Rincon	do		T.	T.		.89								.78	.10	.45						.32						T.				.25	2.79
Rio Grande Dam	do		T.			.07						T.	T.	.11	.22	.81	T.	T.		1.05	.60				.16		.06				T.	T.	3.08
Rio Grande In. Sch.	do	.02												.15		.25	.08										.08						0.58
Rosedale	do		T.	.15		.50					T.	.05	.10	.35	.05			.15	.05	.10	.25				.05	T.	T.	.15	.89	.80	.80	1.08	5.52
Roswell	Pecos	T.	.01	.10	.20	.40		T.						.02	.05	.24	T.	T.	T.		.05										1.70	.03	2.80
San Marcial	Rio Grande			.20	.01											.14		.27	.03	.02	.05	.04					.18	.01			1.02	.02	1.99
San Rafael	do				T.							T.		.50	.28	.68				T.								.45		.24			2.15
Santa Fe	do			T.	.04	T.								.12	.22		.01	T.		.08		.38	T.		.01	.07		.15		.05	T.	.02	1.15
Santa Fe Canyon	do				T.	T.								.05	.45	.05		T.		.02	.05	.61	.04		T.	T.		T.	T.	.09	1.23	.20	2.79
Santa Rosa	Pecos				.10									.09	.39	.03		.03	.18			.22									T.		1.04
Senorito (near)	Rio Grande				.19									.10	.18	.03	.08	.04	.10	.14		.18			.09		.05			T.	(*)	1.40	2.58
Socorro	do				.17					.15			.20		.15		.11	.14		.40										.90		.17	2.39
South Fork	do				.20													.21								.50		.30	.20	.41	.32	.34	2.48
Stanley	do				1.23									.08	1.16			.08		.61	.11				.03	.04			.04	.15	.04	T.	3.57
Strauss	do			.06		.30							.40	.16	.40	1.57	.02		.37	.59	.04	.14		.06	.51	.62							5.24
Tajique (near)	do				.29									.29	.61	.13	.27	.01		1.33	.11	.22			.14		.02				.09	.28	3.79
Taos	do													.09	.13	.08				(*)	.26			.17					.04	.18			0.95
Taos Canyon	do				.17									.18	.19	.07		.14	.05	.05	.54	.08	T.		.06			T.	T.	.18	.04	T.	1.75
Tecolote	do			.03	.07	T.									.17	.37		.17		.22		.07			T.		T.		.17			1.27
Three Rivers	do				.62	.08								.28		1.15		.37		T.	(*)	.55	T.		T.	.03		.11	.08		.86		4.13
Tijeras Canyon	do																																
Torrance	Pecos		T.		.60							.40	.10	.10	.30	.10		T.	.30	T.	.10	.50			.10					.75			3.35
Tres Piedras	Rio Grande													.02	.57	.16														.02		.32	1.09
Truchas	do				.02	.11	T.							.08	.59	.02	T.	.01	.08	.09	.07	.87	T.			T.	T.	T.			.28	.12	2.34

TABLE 2.—*Daily precipitation for August, 1912. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
New Mexico—Con.																																	
Tularosa	Rio Grande				.22	.55								.10	.18	.15	.20	.05			.42	.18						.05				2.08
Vaughn	Pecos				.02									.47	.83						.39							.24	.08		.33		2.36
Virsylvia	Rio Grande			.10		.20									.90	.30		.30		.30	.20	.54		.20	.30				.10		.10		3.54
Winsors	Pecos																																
Texas.																																	
Abilene	Brazos	.16		T.	.11	.01	T.		.29	.79												.97	.48									2.81
Albany	....do	T.		T.		.16			.75	3.35												1.12											4.38
Alice [1]	Coast																		.18														0.18
Alpine	Pecos			.30			T.	T.																									0.30
Alvin	Coast	T.		1.39			T.								.10		4.48	.42							T.				1.35				7.74
Anahuac	....do	.08						.49						.21	.11		.11	.15	.18												1.05		3.10
Antelope	Trinity	.06	T.		.48	2.09	.86	.22	.83	T.											.54			.72									5.08
Aspermont	Brazos			.04	.51					.91		.81													T.								2.46
Austin	Colorado					.04	T.															.19											0.31
Ballinger [1]	....do	T.	T.		T.	T.				T.									T.					.27						T.		1.16
Barstow	Pecos							.20														1.16	.12									1.95
Bay City	Colorado				.15	.03			.12		.37		.02		.08		.90		.17		.36	.20		.07				.18				.72	1.74
Beaumont [1]	Neches	.07	T.						.12	.21		.86				.18	1.53		.23	.84					.13	1.02				.49		.65	6.33
Beeville [1]	Coast									T.								T.	.27	.64	T.				T.								0.91
Big Spring	Colorado		.37	.05	.05	.05	T.		T.			T.										.52											1.04
Blanco [1]	Guadalupe																	.04	.04					.98									1.06
Boerne	San Antonio																	.30				.01			.55								0.86
Booth [1]	Brazos		.67			.33		.52			.15				.08			.37		.04								.05			.32		2.53
Bowie	Trinity	.12			.45		2.07	1.15		1.21	.06									.08													5.14
Brady	Colorado																																
Brazoria	Brazos			.14	.01				.09			.02	.03		.29	.60	.20	.02	T.		T.		1.20	.07			.02		.17		.15	3.01
Brazos [1]	....do			.90			6.30	.45		.31												.94										8.90
Brenham [1]	....do		.02		T.																		T.	.31	T.					T.		0.33
Bridgeport [1]	Trinity		.30			.05	1.75	.52	.35	2.66	.05												.05			T.							5.73
Brighton	Coast																																0.00
Brownsville	Rio Grande																		.01	.06	.02		T.		T.	.02					.01		0.12
Brownwood [1]	Colorado				1.06	1.50				1.50	.05								.07				.72	.02									4.92
Buena Vista	Pecos					T.			.22						.61				.15	.08			.07	.68									1.81
Cameron [1]	Brazos																																
Carmona	Neches		T.	1.39					T.		.16			T.	.05		T.	T.	T.				T.	T.			.40		.18		T.	2.18
Carrizo Springs	Nueces																																0.00
Claytonville	Brazos	.17																															1.08
Clifton	....do	1.14	T.			.38	1.37			T.											.75	.16											3.34
Coleman	Colorado		.13	T.					.50	T.		T.													.14	.31							1.61
Collegeport	Coast																	.63				.35											
College Station	Brazos			.02		.01																											0.21
Colorado	Colorado	*	1.45		.22				T.										1.25			.01			.16	.01					T.		2.92
Columbia	Brazos																																
Columbus [1]	Colorado			T.		.44		.10										T.	T.	.84											T.		1.38
Corpus Christi	Coast																		.02		.02											T.	0.04
Corsicana [1]	Trinity		1.90	.07	.21		.02	.65																	.39			.23					3.47
Cotulla	Nueces																																0.00
Crockett	Trinity	T.	.05	.40					T.		.02				.11									.02	.03			.30				.10	1.03
Cuero [1]	Guadalupe				.11													.80	.95	.14													2.00
Dallas [1]	Trinity		.11	.07			2.46	.56	.52	2.12	.14																							6.16
Danevang	Coast	.15		1.35							.05	.05					.85					.18			T.								2.45
Del Rio	Rio Grande																	T.	T.					.17									0.17
Devine	Nueces														T.	T.																	T.
Dialville	Neches	T.	3.75				T.		T.	.15	T.													.85	T.				T.				4.75
Dilley	Nueces																																0.00
Dublin [1]	Brazos		.02				.56			.12		.41										1.35	.03										2.49
Duval	Colorado				T.	T.	T.															.64	.31								T.	1.95
Eagle Pass	Rio Grande																																0.00
Eastland [1]	Brazos		T.				T.			2.05	1.20	T.								.50		.25											4.00
Edna	Lavaca																1.80								.64								2.44
El Paso	Rio Grande	.02	.03	T.	.02	.02					T.	.03	.10	.15	.40	.61			.01	.03	.02	.19	.24	.15	.60			T.		T.	T.	.21	2.83
Encinal	Nueces																																0.00
Eola	Colorado																																
Fairland	....do			.12	.70					T.														10	T.				T.				0.92
Falfurrias	Coast																	T.						T.									T.
Flatonia	Guadalupe			T.		.02	.71											.07		T.	T.			.11	.01								0.92
Flint	Neches	T.	T.	1.31			.05		.20	2.17	.02														.14					.10			3.99
Fort Clark [1]	Rio Grande																					.10	T.										0.10
Fort Davis	Pecos																																
Fort McIntosh	Rio Grande																																
Fort Stockton	Pecos	.22				.17																											0.00
Fort Worth	Trinity	1.34	.10			.15	3.03	.52	T.	.04				.30	.16	T.		.32	.72			T.	T.		T.			T.	T.			T.	1.89
Fredericksburg	Colorado																	T.				.01	1.37			T.			T.				6.56
Gainesville	Trinity						2.60	.64	.82															.84									0.84
Galveston	Coast		.01	.05							T.															.21							4.27
Gatesville	Brazos										.10				.57	T.	T.	T.		T.			.05	.02	.19			.45	.21	.04	T.	T.	1.59
Georgetown [1]	....do						.84			.02														.15	.10								0.35
Gonzales [1]	Guadalupe																							.21									1.07
Gorham [1]	Brazos		.34				.10	1.32											.06						.80	.16							1.02
Graham	....do	.02	.23			.30	2.16			1.23												1.46											1.76
Grand Falls	Pecos														T.			T.	.35			T.											5.40
Grand Saline	Sabine	T.	T.			.20	.90	.20	.25	1.40	.42											.10											0.35
Grapevine	Trinity	.01	.35				2.05	.40		2.05												.40											3.47
Greenville [1]	Sabine				.05	.05	1.00	1.70		4.50	.30	1.15										.05											5.26
Hallettsville	Lavaca			T.		T.	T.										T.	1.20	T.		T.				T.	T.			T.	T.		8.80
Hamlin	Brazos					.33	.12		2.10															.19									1.20
Harlingen	Coast						.05								T.							.05	T.	.50									2.74
Harper	Colorado	.38																															0.60
Haskell [1]	Brazos						.82		.72	1.15	.56	.07										.05											0.43
Hebbronville	Coast																					.19											3.51
Hempstead [1]	Brazos																																
Henderson	Neches		2.70				T.		.08	.46	1.40									.30				.46				.10			.12	0.98
Hewitt	Brazos	1.04			T.	.03	.31			.12																	.15			.18	.04		5.01
Hico	....do	.01	T.	.65			3.60	.01		.20																			T.				1.50
Hillsboro	....do		.11	.08			2.40	.38										.07			.60		.11									5.25
Hondo [1]	Nueces																								.53								3.50
Houston	Coast	T.			T.	.01		T.	.01		T.							.25	T.														0.25
Huntsville [1]	Trinity											1.00			.01	T.	.11		.08		T.		T.	.17		.31	.06	.16	T.	.19	1.48	2.59
Jayton	Brazos					1.00				1.00																1.32							2.32
Jewett [1]	Trinity			.80				T.	T.												.70												2.70
																																	0.80

TABLE 2.—*Daily precipitation for August, 1912. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Texas—Continued.																																	
Junction	Colorado						1.19	.10	2.06																								0.00
Kaufman	Trinity																							.16									3.35
Kerrville ‖	Guadalupe							---																									0.16
Killeen	Brazos			.77																													0.77
Knickerbocker	Colorado			.07								.13						T.				T.	3.00		T.								3.20
Kopperl ‖	Brazos		.08	1.10			2.07	.10														T.											3.35
Lagrange	Colorado			.07		T.	.20										T.	.15	T.						3.27				.12				3.81
Lamesa	do	.40		.20	.53		.14				.03								1.10										.08				2.48
Lampasas ‖	Brazos									.46	.28								.17														0.91
La Para	Coast																																0.00
Laureles Ranch	do																																---
Liberty ‖	Trinity		1.70	.12	T.	.30			.44	.93					T.	.12		.60	T.	.30	T.							.93		T.	T.		5.50
Llano ‖	Colorado			T.		T.						T.							T.				T.	.06	.06							0.12
Llano Grande ‖	Rio Grande																	---						.06									0.06
Long Lake ‖	Trinity		.70	.60					.13		T.																		.12				1.42
Longview ‖	Sabine			1.45						3.04	5.81	4.40																		.45			15.28
Lubbock	Brazos	.03	.45		.33	.28			.16			.08				T.			.03	.22		.79				T.		T.			T.	2.37
Lufkin	Neches		.06	.41				.30		.30	.81					.07									85			.25		.04		3.09
Luling ‖	Guadalupe					.18											.08							.20								0.46
McGregor	Brazos																																0.00
McKinney	Trinity					2.20	1.18	.70	.35	.61	.02												.12				.26						5.53
Marathon	Rio Grande					.40								.02	T.			T.	.60					1.10	.41		.06			.10			2.28
Marble Falls ‖	Colorado					.80																		.10									1.31
Marfa	Rio Grande																																---
Marshall	Sabine		.11		.14		.02		.46	5.25	1.58																			.74	.22		8.52
Matagorda	Coast										.19	.23				.26		.07		.24													0.99
Mexia ‖	Brazos		.04		3.10		.02	.27																	.21								3.64
Midland	Colorado	.05		.12		.10						.40				T.	T.		T.			.15	.25										1.07
Mission ‖	Rio Grande														T.																		T.
Mont Belvieu	Coast	1.19						T.	.04							.13	1.18	.45			.25				1.05		.10	.59		.51			5.49
Mount Blanco	Brazos	2.05		.91	.62														.40			.07											4.05
Nacogdoches ‖	Neches	.08	.20	.90					T.	T.		1.03													.09			T.			T.	T.	2.30
New Braunfels	Guadalupe																T.																T.
Palestine	Trinity	T.	.41	.01						T.	T.													T.	.04								0.46
Panter	Brazos	.03	.14		1.55	1.05				.52												.43	.04										3.76
Pearsall	Nueces																																0.00
Pierce	Colorado				.64			.46									.05	.70				.03				.12							2.00
Plainview	Brazos	.52	.10		.72	.47						.54				T.	.03		.04			.45					T.					.07	2.94
Port Arthur	Coast																																‡4.00
Port Lavaca	do					T.								T.		T.	T.	T.															T.
Post City	Brazos																																---
Putnam	do								1.00	2.00												.30											3.30
Raymondville ‖	Coast																		T.	T.	T.												T.
Ricardo	do																																---
Riverside ‖	Trinity			.50						.55		.55												1.40	T.	T.							3.00
Rockland ‖	Neches		.10								.40					1.40										80							2.70
Rockport	Coast																	T.			20											T.	0.20
Rossville	Nueces				T.													10															0.10
Runge	San Antonio																																0.00
Sabinal	Nueces																																0.00
Salado	Brazos					.46																		34									0.80
San Angelo	Colorado	1.50	.76	.64	T.							T.																					2.90
San Antonio	San Antonio																	.22	.02				.05									T.	0.29
San Augustine	Neches	.74	T.	.31				T.	.15		.70					.36								.29		.40			T.				2.95
San Juanito	Coast																																0.00
San Marcos ‖	Guadalupe																		.05					.07									0.12
San Saba	Colorado		T.	T.						.14															.25								0.39
Santa Gertrudes ‖	Coast																	T.	T.				.94		.20	T.	T.		T.		.41		2.13
Sealy	Brazos			.24	.34																					T.	T.						2.81
Seymour	do			T.		1.17	.45	1.14	.05															.35	.15								0.76
Snyder ‖	Colorado		.08				.11		.04										.03					.25									0.75
Somerville	Brazos															.50																	---
Sonora	Rio Grande																																1.66
Spur ‖	Brazos	.36				T.	.55		.53	.02	.01											.55		.19									6.95
Stamford	do			1.35		.85			.50	2.42		1.28																					5.70
Stowell	Coast	.90	.15											1.15	.30		1.00		.40		.60				1.20								0.34
Sugarland	Brazos				.07												.07													.20			1.00
Sutherland Springs	San Antonio																						1.00										0.75
Taylor	Brazos	.05			T.	T.	.04									T.		.14	T.				.48	.04							T.	1.58
Temple ‖	do		.74	.03	.36	.04	.01																	.40									0.50
Theodore	Pecos					.27																								.05		.18	3.70
Thurber	Brazos		.29			.29	2.25	.12		.54												.09	.12										0.00
Tivoli	Guadalupe																																---
Uvalde	Nueces																																---
Valentine	Rio Grande						.31					.92	.79		.28	.03	T.	T.	.15	.67		.30	.31	.65	.03							T.	4.44
Valley Junction ‖	Brazos																								.69								0.69
Victoria ‖	Guadalupe																	23			50	.15											0.88
Waco ‖	Brazos		.48					.90			T.																						1.38
Waxahachie ‖	Trinity		.36		T.		2.58	.63	T.	.04	.10															23							3.94
Weatherford ‖	do	.08	.04	.05			3.28	.35	.30	.46	.08												2.13	T.							T.		6.77
Wills Point	Sabine	.40					1.20		.20	3.30	1.10																						6.20
Winters	Colorado																																---

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.														Texas.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Browns-ville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	83	46	77	50	98	65	100	71	86	78	86	54	82	52	96	67	81	58	96	65	97	76	107	74	93	77	89	77
2....	82	47	81	41	97	69	100	66	85	50	81	51	82	56	96	65	85	61	97	61	98	75	105	64	94	74	88	78
3....	82	43	83	47	96	67	99	68	80	57	84	60	82	54	96	67	85	58	94	60	98	74	102	75	93	77	90	79
4....	79	47	76	49	93	69	95	65	82	53	89	54	75	54	89	64	79	55	91	66	94	73	95	71	94	76	88	78
5....	80	39	83	40	92	64	96	64	86	56	87	56	80	52	84	63	80	54	93	60	98	72	98	70	94	73	87	78
6....	79	35	83	42	97	66	101	65	88	50	90	54	85	58	92	63	83	60	97	57	96	70	99	68	93	75	89	77
7....	79	36	79	37	99	65	95	65	90	50	92	57	85	64	93	62	83	57	98	60	94	73	101	74	93	78	88	79
8....	78	38	76	37	100	60	94	67	90	52	92	51	88	60	90	61	84	54	89	59	100	70	105	75	92	77	88	80
9....	84	35	84	40	99	65	102	63	91	53	93	55	87	60	87	65	86	50	89	60	77	64	88	66	92	77	87	78
10....	84	39	84	40	99	64	101	64	91	53	92	54	85	57	97	64	84	59	99	61	96	68	105	65	90	76	88	78
11....	83	44	84	43	94	69	100	66	88	57	92	57	80	55	97	66	86	57	99	64	95	73	104	65	90	75	87	79
12....	81	44	79	51	92	66	99	65	82	54	89	59	76	56	96	69	75	59	94	70	97	76	101	73	93	77	87	97
13....	77	37	70	50	80	63	96	68	78	56	85	56	68	52	90	64	70	55	88	67	96	76	100	74	94	75	86	79
14....	70	42	71	52	83	65	87	64	75	54	83	58	70	51	87	64	69	55	76	61	96	75	99	69	94	73	85	77
15....	72	50	71	51	80	62	89	67	78	55	85	52	72	48	84	64	72	53	82	60	95	73	100	71	93	72	86	77
16....	74	41	77	43	86	62	87	62	79	50	81	50	74	50	84	65	77	52	73	59	96	74	98	73	95	73	86	78
17....	75	42	71	47	83	63	87	65	75	64	84	51	72	50	85	65	73	54	74	.....	94	73	97	71	95	74	87	81
18....	80	40	73	47	84	64	88	64	74	50	82	50	74	49	88	62	77	54	89	.....	96	74	98	72	94	73	87	80
19....	78	41	80	41	75	62	89	62	74	54	83	52	74	52	85	60	75	54	84	.....	97	76	99	71	94	71	88	78
20....	81	45	75	40	84	65	94	65	77	52	81	48	70	50	90	63	77	51	89	.....	98	77	101	72	95	73	86	78
21....	79	44	77	40	78	65	91	66	83	53	82	50	70	52	89	64	72	54	84	.....	98	69	100	71	96	72	90	77
22....	80	46	82	44	85	63	93	64	80	48	76	52	78	50	89	60	76	53	89	56	88	68	91	69	94	72	91	77
23....	81	45	79	47	85	63	95	63	81	49	81	46	78	50	91	58	79	57	91	57	91	69	94	67	95	72	91	78
24....	83	43	81	44	85	65	91	62	80	51	83	56	68	55	90	58	77	58	93	56	95	73	97	67	95	74	89	79
25....	84	49	84	41	84	59	96	63	81	54	85	51	76	50	93	65	82	53	93	61	95	76	99	74	93	76	88	78
26....	86	40	87	40	89	68	98	65	84	51	83	50	80	58	95	63	87	59	96	58	97	77	100	74	93	78	88	80
27....	82	44	78	45	88	65	93	66	81	56	86	58	74	54	90	69	77	55	93	61	96	77	98	76	96	75	90	78
28....	81	45	82	45	87	64	98	65	80	53	89	51	72	52	94	63	81	54	96	64	97	74	101	74	96	70	90	76
29....	82	46	76	46	88	65	97	64	80	54	88	52	76	52	93	63	80	57	92	61	96	72	98	73	95	71	89	75
30....	75	45	78	46	85	62	92	64	85	53	87	50	70	52	90	56	78	57	88	58	95	75	99	72	94	76	87	78
31....	78	50	73	50	82	65	90	65	75	53	89	53	71	52	86	64	74	56	82	58	93	74	95	74	94	74	87	80
Mns..	79.7	42.8	78.5	44.4	88.6	64.5	94.6	64.9	81.9	54.0	85.8	53.2	76.6	53.5	90.5	63.4	78.8	55.6	89.9	60.8[a]	95.1	73.1	99.2	71.1	93.7	74.4	88.0	78.2

Date.	Texas.																									
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	106	79	97	68	108	77	105	71	86	67	88	81	98	77	94	76	98	72	90	76	88	65	99	75	93	73	90	73
2....	101	79	95	72	105	78	105	71	97	74	88	78	101	78	90	77	96	72	94	69	94	65	98	75	93	73	97	73
3....	102	80	96	69	105	73	100	69	102	74	88	76	101	77	90	76	98	70	94	71	95	64	100	76	97	76	99	75
4....	102	80	92	68	108	78	101	66	85	74	90	79	101	77	90	76	91	75	84	72	88	63	100	78	92	69	98	74
5....	100	80	91	68	105	77	100	75	82	66	84	78	99	77	90	75	90	65	88	69	88	64	97	76	94	70	96	73
6....	100	78	97	69	105	74	99	73	74	65	87	80	98	76	93	73	90	65	81	66	88	62	96	76	88	69	92	76
7....	101	79	99	69	105	74	101	70	89	65	88	82	98	76	93	76	96	65	91	72	88	59	97	76	88	65	96	75
8....	99	78	100	75	107	78	106	72	92	73	88	83	98	77	91	77	97	73	94	74	82	67	98	76	91	70	96	75
9....	100	78	99	73	105	73	98	68	80	68	88	82	98	76	93	76	96	65	91	74	81	61	97	76	87	68	95	76
10....	98	78	98	72	103	74	104	67	92	71	87	82	100	78	91	77	98	69	86	74	94	62	98	77	93	70	98	76
11....	102	77	95	69	108	78	103	68	93	75	88	81	98	75	93	75	100	70	95	73	93	66	99	75	95	75	98	75
12....	99	77	92	67	104	78	102	69	93	75	88	82	100	76	94	76	98	73	94	74	91	60	97	75	97	76	97	75
13....	99	76	84	64	104	76	101	70	91	74	88	81	100	74	91	75	95	73	93	72	91	68	97	74	95	76	96	72
14....	99	76	84	63	105	76	92	69	93	75	86	70	98	74	93	73	90	71	91	74	90	63	96	76	98	73	96	73
15....	96	76	79	61	104	76	94	70	91	71	87	80	98	73	92	71	95	70	91	70	90	60	96	75	99	73	94	72
16....	98	76	85	63	102	76	94	72	91	73	87	76	91	74	92	71	94	70	92	73	91	61	94	70	99	73	93	71
17....	97	74	83	66	104	77	91	69	90	75	88	81	96	73	89	70	94	69	92	70	91	60	91	73	97	73	91	72
18....	97	75	83	65	105	77	90	67	92	74	88	82	95	75	91	76	97	70	93	74	90	64	94	75	98	75	96	71
19....	98	75	77	65	101	76	92	66	94	76	88	82	95	75	93	75	97	70	94	74	92	61	96	74	99	78	96	73
20....	99	77	84	65	102	72	96	67	96	76	88	82	97	75	95	75	99	74	95	74	97	65	96	75	101	74	98	73
21....	102	78	76	62	105	77	97	69	98	78	90	82	97	75	94	75	98	70	96	74	92	64	99	76	96	78	99	75
22....	102	79	84	63	104	77	91	65	82	70	90	81	96	76	96	76	93	74	92	75	92	62	98	75	97	71	96	72
23....	102	76	85	67	104	78	93	65	91	70	90	79	98	77	95	79	93	71	96	74	95	61	95	76	100	69	92	75
24....	100	74	87	66	104	78	93	65	93	73	85	74	98	76	94	77	97	70	90	74	96	60	97	75	101	72	95	73
25....	98	76	88	64	105	78	97	67	94	75	88	83	97	76	94	77	95	75	94	74	94	65	97	77	100	76	96	75
26....	99	79	89	70	105	77	102	69	95	77	88	82	100	77	93	74	97	75	95	75	96	65	97	76	103	72	97	76
27....	100	79	89	68	105	79	98	71	97	74	88	75	99	74	93	73	97	70	96	73	94	65	98	74	103	75	97	76
28....	101	76	89	69	105	75	98	67	95	74	86	79	98	73	91	74	96	68	95	72	98	65	98	72	103	75	97	74
29....	100	74	88	70	105	75	96	67	91	72	87	76	96	77	89	74	94	71	89	71	96	63	95	76	101	72	93	75
30....	100	78	87	61	105	78	95	66	95	75	89	82	99	75	91	77	95	70	94	73	94	59	96	75	100	74	97	73
31....	98	78	81	63	105	77	94	68	95	75	88	80	99	75	90	73	96	72	93	73	91	61	96	75	99	77	95	74
Mns..	99.9	77.2	88.8	66.9	104.7	76.4	97.7	68.6	91.3	72.7	87.8	79.7	98.0	75.6	92.2	75.0	95.5	70.5	92.0	72.7	91.6	62.9	96.8	75.2	96.7	72.9	95.7	73.9

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

August, like the preceding month, was cooler and wetter than the average, but the departures were generally less marked than for July. A feature was the unequal distribution of precipitation in Arizona, the rainfall ranging from a trace over a considerable area in the northwestern part of the State to more than 10 inches in the southeastern part. Day temperatures were not so high as usual; in fact, readings of 100° or higher were relatively few, and occurred principally in Arizona. In the central and northern parts of the district cool nights predominated, and the freezing point was reached in western Wyoming and at one or more stations in the different areas, except western New Mexico and southeastern Nevada. The number of thunderstorms considered, there were few high winds, and but little damage from hail.

TEMPERATURE.

The mean of the 142 stations reporting was 70.8°, or 2° below the normal. The mean for August, 1911, was 72.8°. The highest monthly mean was 92.9° at Mohawk Summit, Ariz., and the lowest, 45.6°, at Corona, Colo. Except for a day here and there the first two decades were cooler than the normal, during which period there were a number of days with deficiencies ranging from 5° to 8°. The last decade averaged warmer than the normal in the northern and central portions of the district, but in central and southern Arizona the majority of days were cooler than the normal. In western Wyoming and western Colorado the highest temperatures occurred principally on the 26th, while in eastern Utah, western New Mexico, and Arizona the 8th and 9th were the warmest. On the other hand, there was no semblance of regularity in connection with the occurrence of the lowest temperatures, the minimum of the month occurring on every day at some station in the district.

Details of temperature are summarized in the following table:

Areas of States in district No. 9.	Temperature.					
	Mean.	Departure from normal.	Highest.	Station.	Lowest.	Station.
Western Wyoming.	58.3	−0.6	94	Green River..	25	Daniel.
Western Colorado.	61.4	−2.3	101	Palisades.....	23	Silverton.
Eastern Utah.....	68.6	−0.9	103	Hite and St. George.	25	Strawberry Tunnel (east).
Western New Mexico.	69.0	−1.7	101	Pratt.....	34	Dulce.
Arizona.....	77.7	−2.4	117	Maricopa.....	32	Flagstaff No. 1.
Southeastern Nevada.	79.0	.....	108	Logan.....	42	Caliente.

PRECIPITATION.

The average for the 206 stations reporting was 1.88 inches, or 0.15 inch above the normal. The average for August, 1911, was 1.42 inches. The excess was for the most part due to heavy rainfalls on the watershed of the Mimbres in southwestern New Mexico and the upper Gila in southeastern Arizona. While rain fell every day at some station, showers were general in the northern half of the district on the 1st, from the 13th to 17th, and on the last 6 days. In Arizona and western New Mexico showers were frequent during the last 2 decades. The greatest monthly amount was 10.15 inches at Bisbee, Ariz., while none occurred at Nast, Colo., and Caliente, and Logan, Nev. No snowfall was reported.

The average precipitation and departures from the normal on the different watersheds are given in the following table:

Watershed.

Green.		Grand.		San Juan.		Little Colorado.		Gila.		Mimbres.		Colorado, proper.	
Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.
1.26	+0.26	1.21	−0.16	1.81	+0.31	1.79	−0.92	2.68	+0.27	4.08	+2.32	0.68	−0.55

The average number of days with 0.01 inch or more precipitation was 5 in western Wyoming, 7 in western Colorado, 5 in eastern Utah, 8 in western New Mexico, 6 in Arizona, and none in southeastern Nevada. For the district as a whole the average was 7 days.

MISCELLANEOUS.

The amount of sunshine was approximately normal in the southern part of the district, and appreciably above the normal in the northern part. The following values were reported: Grand Junction, 79; Durango, 87; Phoenix, 82; and Yuma, 92 per cent.

The relative humidity was somewhat above the average in Arizona. The following are the values: Grand Junction, 38; Durango, 56; Phoenix, 44; and Yuma, 50 per cent.

TABLE 1.—*Climatological data for August, 1912. District No. 9, Colorado Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Battle Mountain	Carbon	7,300																		U. S. Forest Service.
Bigpiney	Uinta			56.2		89	25	27	31	56	1.41		0.50	0	6	17	2	12	nw.	Ira Dodge.
Daniel	do	6,740	13	54.0	− 0.6	81	26	25	31	46	1.56	+ 0.52	0.60	0	4	16	13	2	nw.	J. M. Van Dervort.
Eden	Sweetwater	6,577	3	59.6		87	26†	31	31	49	0.95		0.95	0	8	19	8	4	w.	Eden Valley L. & I. Co.
Green River	do	6,183	7	65.6		94	26†	34	19	46	1.46		0.64	0	7	16	5	10	w.	Geo. H. Maxom.
Pinedale	Fremont	7,167	6	55.9[p]		83[p]	28†	28[p]	31	50[p]	0.68[p]		0.36	0	2[p]	8[p]	6[p]	1[p]	nw.	U. S. Forest Service.
Rambler	Carbon	9,232	1																	Do.
Willow Creek Cabin	Fremont	7,500	3																	Do.
Colorado.																				
Ashcroft	Pitkin	9,483	10	53.2	− 1.2	82	26	31	8	47	1.17	− 1.24	0.33	0	12					Dan McArthur.
Breckenridge	Summit	9,536	23																	Mrs. J. G. Thompson.
Buford	Rio Blanca		1								1.91		0.80	0	5	22	5	4	w.	Mrs. H. Genier.
Cascade	San Juan	8,900	5								2.66		0.66	0	11	17	5	9		San Juan W. & P. Co.
Cedaredge	Delta	6,175	14																	Harry A. Cobbett.
Chromo	Archuleta	7,500	6	59.8		87	27	28	14	57	1.85		1.00	0	6	21	2	8	sw.	Lawrence Nolan.
Cochetopa	Saguache	9,088	3								1.44		0.36	0	7	10	8	13	w.	Bessie McDonough.
Collbran	Mesa	6,000	19	65.5	− 2.1	87	9	45	8†	39	2.22	+ 0.89	0.56	0	9	21	7	3	sw.	A. A. Wood.
Columbine	Routt	8,766	2								2.41		0.48	0	10	19	12	0	sw.	Mrs. M. A. Caron.
Columbine Ranch	Delta	6,925	2								2.15		0.90	0	7	17	7	7	s.	George W. Wade.
Corona	Grand	11,660	5	45.6		60	25	30	8	24	1.64		0.32	0	7				w.	U. S. Weather Bureau.
Cortez	Montezuma	6,100	1																	W. G. Clucas.
Craig	Moffat		2																	Joseph F. Haubrich.
Crawford (near)	Montrose	6,600	2	64.6		85	26	44	16	35	1.50		0.56	0	10	22	6	3		C. W. Roe.
Crested Butte	Gunnison	8,867	2	52.1		74	5†	29	9†	45	1.65		0.65	0	6	19	5	7		Charles L. Ross.
De Beque	Mesa	4,935	2																	H. M. Quigley.
Delta	Delta	4,965	22	70.2	− 2.0	100	27	43	5†	52	0.56	− 0.36	0.16	0	6	23	6	2		E. M. Getts.
Dillon	Summit	8,800	2																	Harry T. Hamilton.
Durango	La Plata	6,534	17	64.5	− 1.8	88	9	44	8	44	2.57	+ 0.78	1.21	0	10	12	16	3	nw.	U. S. Weather Bureau.
Eureka	San Juan	10,000	5								0.81		0.21	0	5	12	0	19		San Juan W. & P. Co.
Fraser	Grand	8,560	3	49.6		76	26	24	23†	48	0.92		0.30	0	8	1	13	17	e.	L. D. C. Gaskill.
Fruita	Mesa	4,510	13	71.4	− 2.0	97	26	45	11	49	1.45	+ 0.28	1.09	0	6	21	10	0	se.	J. B. Willsea.
Glade Park	do	7,000	1								0.89		0.37	0	5	18	11	2	sw.	A. F. Terrill.
Gladstone	San Juan	10,400	5								2.78		0.45	0	14	2	17	12	ne.	San Juan W. & P. Co.
Glenwood Springs (near)	Garfield	5,823	14	62.0	− 4.4	91	26	28	9	54	1.30	− 0.03	0.30	0	6	21	2	8	w.	E. A. O'Neil.
Grand Junction	Mesa	4,608	21	74.4	− 1.7	97	26	54	8	38	1.35	+ 0.31	0.91	0	8	19	9	3	se.	U. S. Weather Bureau.
Grand Lake	Grand	8,153	4								0.40		0.20	0	3	20	8	3	w.	Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	20	70.0	− 1.3	99	26	42	11†	55	1.30	+ 0.31	0.49	0	7	13	11	7		David Evans.
Gunnison	Gunnison	7,670	19	56.8	− 2.7	80	9†	32	9	48	1.12	− 0.21	0.54	0	6	17	9	5	sw.	Clarence Adams.
Hesperus (near)	La Plata	7,610									2.94		0.80	0	8	12	9	10		G. F. Snyder.
Horsefly	Montrose	8,700	2								1.21		0.83	0	2	21	7	3	sw.	Lawrence J. Finch.
Ironton	Ouray	10,000	2								1.52		0.70	0	5	6	16	9	sw.	Mrs. A. E. Foley.
Lake City	Hinsdale	8,686	7	59.0		80	26	36	8	40	1.44		0.41	0	15	11	14	6	s.	J. F. Maurer.
Lay	Moffat	6,190	18	62.6	− 3.0	90	26	35	8	48	2.22	+ 1.38	1.35	0	8	21	3	7		A. G. Wallihan.
Mancos	Montezuma	6,960	13	63.2	− 1.3	87	9	39	9	48	2.49	+ 0.04	0.64	0	9	18	11	2	w.	B. M. Krumpanitzky.
Marble	Gunnison	7,951	3	57.4		84	26	34	10	46	1.69		0.45	0	9	22	5	4	ne.	F. E. Morse.
Marshall Pass	Saguache	10,846	9								0.90		0.70	0	3	17	10	4		Wm. L. Williams.
Meeker (near)	Rio Blanca	6,182	20	60.4	− 3.8	85	9	33	20	46	1.75	+ 0.17	0.78	0	7	14	12	5		T. Baker.
Montrose	Montrose	5,811	23	69.0	− 1.7	92	9	45	8	44	1.18	− 0.16	0.54	0	6	26	3	2		U. S. Reclamation Service.
Nast	Pitkin	7,953	2	55.4		84	26	33	23†	47	0		0	0	0	25	5	1	w.	Arthur Hanthorn.
Pagoda	Routt	6,500	21																	Mrs. J. W. Scott.
Pagosa Springs	Archuleta	7,108	5	60.6		87	9†	31	9	56	1.42		0.54	0	7	13	16	2	sw.	E. T. Walker.
Palisades	Mesa	4,729	1	75.0		101[b]	26	50[b]	11	47[b]	0.91		0.60	0	4	16[b]	12[b]	1[b]		E. P. Updegraff.
Paonia	Delta	5,694	17	67.3	− 3.6	90	26	49	16	38	1.70	+ 0.50	0.38	0	9	17	13	1	sw.	J. M. Underwood.
Pitkin	Gunnison	9,500	3								1.31		0.65	0	5	24	2	5		Mrs. Maggie Cammann.
Pyramid	Rio Blanca		1	57.4		85	24	36	8†	48	1.39		0.26	0	6	19	12	0	w.	E. E. Egry.
Rangely	do	5,050	13																	J. H. McGuire.
Redcliff	Eagle	8,695	19																	Dorothea Greiner.
Redvale	Montrose										0.63		0.63	0	1	14	12	5	sw.	Dr. E. S. C. Foster.
Rico	Dolores	8,824	10								0.54	− 1.74	0.12	0	7	24	7	0	n.	Clinton B. Smith.
Rifle	Garfield	5,437		68.8		96	26	43	7	47	1.02		0.22	0	7	22	6	3	sw.	Herman Eiche.
River Portal	Montrose	6,570	6	68.2		92	11	45	9	46	1.35		0.69	0	9	19	6	6		U. S. Reclamation Service.
Sapinero (near)	Gunnison	8,125	9	55.8		80	26	34	22	42	1.04		0.24	0	9	23	2	6	w.	W. F. Irving.
Shoshone	Garfield	6,110	2																	Central Colorado Power Co.
Silverton (near)	San Juan	9,400	5	51.8		75	9†	23	25	51	2.24		0.75	0	7	20	4	7	sw.	San Juan W. & P. Co.
Spruce Lodge	Grand	9,600	4								2.03		0.50	0	11					H. J. Wills.
Steamboat Springs	Routt	6,683	9	57.4		89	26	29	24	57	3.24		0.84	0	11	18	11	2		Herbert B. Gee.
Tacoma	La Plata	7,300	5								2.85		0.92	0	8	0	20	11	n.	San Juan W. & P. Co.
Telluride	San Miguel	8,756		55.6		83	26	31	2†	50	2.68		1.06	0	11	22	6	3	w.	Wm. T. March.
Terminal Dam	La Plata	8,300	5								3.22		0.86	0	9	16	4	11	s.	San Juan W. & P. Co.
Uncompahgre Plateau	Montrose	8,400	2								1.18		0.48	0	5	20	11	0	sw.	Martin Esser.
Yampa (near)	Routt	8,000	3								1.51		0.67	0	5	10	16	5	w.	Percy A. Hughes.
Utah.																				
Aneth	San Juan	4,800	8	78.5		97	8†	51	19	37	0.30		0.13	0	5	24	6	1		H. R. Antes.
Bluff	do			76.9		98	8†	56	26	40	0.51		0.30	0	3	19	12	0		H. P. Raplee.
Boneta	Wasatch										0.86		0.41	0	5	18	0	13	s.	Oscar Wilkins.
Castle Dale	Emery	5,500	13	70.2	+ 2.4	93	27	44	30	38	2.10	+ 1.00	0.75	0	3	21	10	0		James Jeffs.
Cisco	Grand	4,447	12																	J. J. Anderson.
Dragon	Uinta			68.6		93	9†	45	19	45	1.11		0.47	0	5	17	5	9	s.	H. D. Ford.
Duchesne	Wasatch			65.4		91	9†	37	19	48	0.49		0.15	0	6	9	19	3		M. M. Smith.
Elkhorn	Uinta	6,657									1.64		0.45	0	8	10	21	0		Chas. De Moisy, jr.
Emery	Emery	6,200	11	64.0	− 1.9	88	24	37	11	41	1.00	− 0.57	0.70	0	2	6	4	21	sw.	H. C. Wickman.
Escalante	Garfield	5,700	9																	Geo. H. Barney.
Fisher Valley	Grand																			R. J. Saunders.
Fort Duchesne	Uinta	5,700	24	69.0	− 0.5	98	25	42	24	54	0.07	− 0.72	0.02	0	5	21	10	0	w.	G. W. Dickson.
Fruitland	Wasatch	7,625	1	64.8		88	24	35	31	42	1.21		0.43	0	6	12	15	4	sw.	J. Peter Naab.
Grayson	San Juan			69.2		89	17	50	17	39	1.17		0.75	0	6	19	10	2	sw.	E. F. Thompson.
Green River	Emery	4,080	12	75.3	− 1.6	101[b]	13	48[b]	24	52[b]	0.36	− 0.43	0.13	0	4	11[b]	18[b]	0[b]	sw.	Edgar E. Adams.
Hanksville	Wayne	4,200	1																	F. J. Weber.
Hite	Garfield	3,000	12	82.2	− 0.4	103	9	59	16†	39	0.14	− 0.58	0.12	0	2	19	9	3		John P. Hite.
Hurricane	Washington										1.20		0.50	0	5	8	12	11		Amos Workman.
Kanab	Kane	4,925	4	70.7		96	8†	47	18	43	2.17		1.10	0	6					V. A. Farming Assn.
La Sal	San Juan	7,000	9	64.6[d]		85[d]	9	46[d]	19†	33[d]	0.25		0.08	0	4	11[e]	13[e]	4[e]		Gertrude W. Carpenter.

TABLE 1.—*Climatological data for August, 1912. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Utah—Continued.																			
Leeds	Washington										1.37		0.60	0	4	24	1	6	B. F. Anderson.
Loa	Wayne	7,000	18																W. S. McClellan.
Manila	Uinta	6,225		62.5		90	9†	35	19	52	0.76		0.31	0	5	11	19	1	Daniel M. Nelson.
Moab	Grand	4,000	22	75.5	+ 0.3	102	25	48	20†	50	0.30	− 0.42	0.13	0	4	14	10	7	Henry Crouse.
Monticello	San Juan	7,545	3																Geo. F. Barton.
New Harmony	Washington																		Geo. F. Prince.
Orderville	Kane	6,660									1.72		0.90	0	6				F. A. Porter.
Pine Valley	Washington	6,000									2.59		0.66	0	6	18	9	4	s. Mason Gardner.
Price	Carbon	5,557	1	71.5		96	25	43	31	46	0.33		0.30	0	2	28	2	1	se. R. H. Thompson.
Ranch	Kane	6,700	9	59.5		88	22	34	19	46	1.30		1.30	0	1	19	9	3	w. J. W. Seaman.
San Rafael	Emery																		W. C. Foy.
St. George	Washington	2,880	25	76.4	− 4.4	103	23	50	6	51	0.98	+ 0.19	0.54	0	5	17	8	6	A. B. Ballantyne.
Scofield	Carbon	7,625	2	56.0		84	24	29	8	51	1.22		0.33	0	8	21	3	7	s. B. Newren.
Springdale	Washington	3,500	4																Hattie Wood.
Strawberry Tunnel, East.				52.1		80	9†	25	19	54	0.84		0.44	0	4	21	4	6	U. S. Reclamation Service.
Teasdale	Wayne	7,000	2	60.8		81	10	40	2†	37	0.21		0.09	0	4	12	8	11	w. Henry Cullum.
Thompsons	Grand	5,150	1	75.2		95	26	56	6	32a	0.18		0.08	0	3	18	12	1	sw. A. M. Starmont.
Tropic	Garfield	7,000	15	66.4	+ 1.8	91	12	42	16	47	1.28	− 0.49	0.90	0	4	14	12	5	nw. E. P. Bolton.
Troutcreek Ranger	Uinta	9,200									2.97		0.55	0	14	6	14	11	sw. Forest Supervisor.
Vernal	do	5,050	15	66.2	− 3.6	93	9†	41	19†	51	0.63	− 0.11	0.22	0	8	23	8	0	S. P. Trim.
Victor	Emery										0.11		0.10	0	2				F. F. Noyes.
White Rocks	Uinta										1.76		0.78	0	7	16	11	4	C. F. Keil.
Woodside	Emery	4,645	1	72.8		98	12	46	31	49	0.61		0.35	0	3	20	3	8	s. D. P. Adams.
New Mexico.																			
Alma	Socorro	5,500	15	71.2	− 1.1	95	9	50	2†	45	2.39	− 0.49	0.70	0	10	3	25	3	sw. M. A. Balke.
Aragon	do		5	64.8		89	8	46	1†	42	0.65		0.45	0	3	5	25	1	J. R. Milligan.
Aztec	San Juan	5,590	12								2.05	+ 0.90	0.74	0	5	16	13	2	sw. Dr. T. J. West.
Berger's Ranch	McKinley	8,000		60.8		85	2†	36	8	48	3.44		0.77	0	13	11	9	11	w. Herman Berger.
Blackrock	do	6,500	3	64.8		89	7	40	31	34	1.26		0.53	0	10	16	7	8	e. D. Blackwater.
Bloomfield	San Juan	5,500	17	72.4	− 0.6	97	26	47	7†	48	1.21	− 0.05	0.45	0	8	9	22	0	sw. F. LeClerc.
Cambray	Luna	4,215	13								5.58	+ 3.92	2.20	0	14	0	21	10	w. Agent Southern Pacific Ry.
Cliff	Grant	4,470	12	76.8	− 0.1	100	8	54	24	35	1.50	− 0.99	0.60	0	5				W. C. Belden.
Columbus	Luna	4,054	3			100	2†	61	25		5.37		1.23	0	12	10	9	12	nw. Agent E. P. & S. W. Ry.
Deming	do	4,333	35	78.8		100	11	60	19†	32	4.04	+ 2.11	1.60	0	7	20	1	10	w. Agent Southern Pacific Ry.
Dulce	Rio Arriba	6,756	15	63.8d	+ 0.2	89d	9	34e	9	55e	2.30	+ 0.20	0.90	0	5	21	6	4	sw. Wm. R. Beyer.
Fort Bayard	Grant	6,152	37	68.6	− 2.6	91	9	48	15	34	4.47	+ 1.58	1.20	0	14	18	10	3	w. U. S. General Hospital.
Fruitland	San Juan	4,800	18	70.6	− 2.1	93	9	45	8	45	0.60	− 0.03	0.60	0	2	20	11	0	sw. C. J. Collyer.
Gage	Luna	4,486	12			99†					3.26	+ 1.67	0.90	0	8	1	30	0	w. Agent Southern Pacific Ry.
Gila Planting Station	Grant	6,475	1	67.2		88	8†	50	15	31	5.97		1.84	0	12	11	15	5	se. U. S. Forest Service.
G. O. S. Ranch	do	8,000		69.0		94	9†	46	7†	46	2.76		0.68	0	11	5	15	11	e. Victor Culberson.
Hachita	do	4,504	3			100	1†	62	21†		4.46		1.12	0	11	13	15	3	w. Agent E. P. & S. W. Ry.
Haynes	Rio Arriba	6,600	1	66.8		90	9†	40	9	50	2.00		1.05	0	3	17	7	7	nw. Dr. J. R. Haynes.
Hermanes	Luna	4,451	3			98	9	60	31		3.58		1.25	0	7	13	13	5	w. Agent E. P. & S. W. Ry.
Lordsburg	Grant	4,245	29	74.7	− 5.4	100	10	51	19	41	2.14	+ 0.63	1.55	0	4	3	23	5	e. J. H. McClure.
Luna	Socorro	7,300	7	60.4		85	9	35	21	45	1.52	− 1.39	0.28	0	10	4	26	1	s. C. B. Martin.
Mimbres	Grant	5,007	7								3.95		0.88	0	12	10	21	0	C. Dennis.
Pinos Altos (near)	do	7,253	1								5.42		1.47	0	15	4	26	1	se. O. L. Scott.
Pratt	do	4,415	3			101	2	58	22		2.73		1.15	0	6	10	14	7	w. Agent E. P. & S. W. Ry.
Putnam	San Juan	6,200		72.2i		97i	10	48i	19	44i	0.30		0.30	0	1	12i	1i	9i	w. C. F. Spader.
Redrock	Grant	4,150	7								2.47		0.56	0	9	8	13	10	Robt. H. Woods.
Rodeo	do	4,118	3			100	1†	60	22		2.23		0.98	0	5	5	25	1	Agent E. P. & S. W. Ry.
Silver City	do	5,860	1	70.8		94	6	51	22	36	1.28		0.60	0	11	10	17	4	E. M. Brumback.
Arizona.																			
Allaires Ranch	Cochise	4,184	16								1.45	− 1.47	0.68	0	8	19	12	0	Thomas Allaire.
Alpine	Apache	8,500	3	57.2		86	8	37	12†	45	4.15		1.41	0	16	6	12	13	s. U. S. Forest Service.
Aztec	Yuma	492	14	91.0	− 3.6	115	8†	68	18	40	1.11	+ 0.66	0.59	0	2	23	2	6	s. Agent Southern Pacific Ry.
Benson	Cochise	3,523	32	76.6	− 5.0	98	3†	58	18	34	2.46	+ 0.22	1.00	0	11	5	4	22	se. Do.
Bisbee	do	5,500	22	70.0	− 2.7	90	6†	52	18	27	10.15	+ 5.32	2.57	0	10	8	8	15	w. Rev. J. G. Pritchard.
Blue	Greenlee	6,000	1								1.80		0.89	0	6	9	22	0	s. Mary A. Jones.
Bonita	Graham	4,916	39								3.22	+ 0.38	2.50	0	5				w. A. H. Jelley.
Bowie	Cochise	3,756	36	76.0	− 2.6	103	7	52	15†	49	2.88	+ 0.10	0.80	0	7	13	0	18	Agent Southern Pacific Ry.
Buckeye	Maricopa	980	19	87.1	− 0.4	112	7	64	19	45	0.65	− 0.21	0.28	0	5	24	4	3	sw. H. E. Kell.
Canille	Santa Cruz	5,225	3								5.13		1.84	0	15	1	27	3	se. Robt. A. Rodgers.
Casa Grande	Pinal	1,396	30			110	4†				0.66	− 0.32	0.23	0	7	17	5	9	Agent Southern Pacific Ry.
Casa Grande Ruins	do	1,422	4	85.2		110	8	65	8†	45	1.39		0.75	0	6	11	13	7	sw. Frank Pinkley.
Cavecreek	Maricopa	1,520	5																E. A. Howard.
Chin Lee	Apache	6,090	4	70.6		96	5	45	17†	50	1.77		0.70	0	5	2	18	11	sw. Rev. L. Ostermann, O. F. M.
Chlarsons Mill	Graham	8,000	6																Hiram R. Chlarson.
Clifton	Greenlee	3,584	4	82.5		104	8†	58	29	37	1.10		0.46	0	6	18	12	1	Arizona & N. Mex. Ry. Co.
Cline	Gila	2,300	12			101	7†				3.58	+ 1.24	1.80	0	5	8	21	2	sw. W. M. Clanton.
Cochise	Cochise	4,219	14	75.2	− 4.3	100	9	48	27	46	2.20	+ 0.09	0.40	0	6	15	0	16	s. Agent Southern Pacific Ry.
Columbia	Yavapai	1,900	11	87.3	+ 1.0	110	8	70	13†	32	1.63	− 0.44	0.60	0	6	22	7	2	s. M. J. Nolan.
Courtland	Cochise	4,543	3								4.93		1.55	0	8	4	27	0	Agent E. P. & S. W. R. R.
Dos Cabezos	do	5,250	4	71.0		93	9	52	8†	40a	3.06		2.00	0	4	8	15	8	w. Neil Erickson.
Douglas	do	3,930	9	78.0		107	4	56	12	47	4.17		2.07	0	16	9	15	7	sw. Dr. F. T. Wright.
Dudleyville	Pinal	2,204	21	76.9	− 5.3	96	9†	59	8	35	2.80	+ 0.30	0.81	0	13	4	18	9	sw. Geo. F. Cook.
Fairbank	Cochise	3,562	3								2.32		0.80	0	9	4	12	15	sw. Agent E. P. & S. W. R. R.
Flagstaff	Coconino	6,907	21	61.2	− 1.6	82	8	40	15	39	0.61	− 2.69	0.29	0	7	13	15	3	w. U. S. Weather Bureau.
Flagstaff (1)	do	7,500	3	58.6		83	8	32	19	46	0.74		0.41	0	8	15	13	3	sw. U. S. Forest Service.
Florence	Pinal	1,504	13			108	3†				0.70	− 1.11	0.70	0	1	22	0	9	Agent Arizona Eastern R. R.
Fort Apache	Navajo	5,200	41	71.2	+ 3.2	100	9	50	15	46	3.81	+ 0.72	1.39	0	10	11	17	3	sw. Post Surgeon, U. S. Army.
Fort Huachuca	Cochise	5,100	25	74.0	0.0	99	8	57	17†	31	6.60	+ 2.34	1.30	0	12	13	0	18	sw. Do.
Fort Mojave	Mohave	604	40	87.1	− 5.7	113	7†	66	20	45e	T.	− 0.66	T.	0	0	22	6	3	se. August F. Ducios.
Gilabend	Maricopa	737	22	88.6	− 3.2	116	7	60	1	50	2.68	+ 1.69	1.07	0	5	24	4	3	s. Agent Southern Pacific Ry.
Globe	Gila	3,525	10	78.4	− 1.8	101	8	60	20	37	2.60	− 0.01	0.70	0	12	7	21	3	nw. B. G. Fox, M. D.
Grand Canyon	Coconino	6,866	7	63.0		86	7	40	24	35a	T.		T.	0	0	29	2	0	sw. Agent Grand Canyon R. R.
Grand Canyon (1)	do	3,676	5	80.1		100	8	60	2	34	0.33		0.15	0	4	10	15	6	n. B. W. Zachau.
Granite Reef Dam	Maricopa	1,372	22	86.4	− 2.1	109	8	67	24	37	2.12	+ 0.71	1.43	0	7	19	10	2	w. U. S. Reclamation Service.
Greer	Apache	9,200	7								3.88		0.80	0	12				U. S. Forest Service.
Heber	Navajo																		F. W. Bragg.
Hereford	Cochise	4,180	3								4.50		1.50	0	6	5	16	10	Agent E. P. & S. W. R. R.
Holbrook	Navajo	5,069	21	75.5	+ 0.5	100	1	53	11†	44	1.72	+ 0.30	0.93	0	5	21	3	7	sw. Thorwald Larson.

TABLE 1.—*Climatological data for August, 1912. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arizona—Continued.																				
Indian Oasis	Pima	3,000	2								1.40		0.75	0	2	14	1	16	e.	Joseph Menager.
Intake	Gila	2,230	7								1.36	− 2.28	0.73	0	3	18	13	0	s.	U. S. Reclamation Service.
Jerome	Yavapai	4,743	14	75.6	− 1.4	95	8†	58	1	27	0.57	− 1.41	0.32	0	2	23	0	8	s.	Dr. L. A. Hawkins.
Keams Canyon	Navajo	6,600	7	68.3		89	7†	48	7†	41	0.83		0.55	0	4	19	12	0	w.	David E. Livesay.
Kingman	Mohave	3,326	11	78.7	− 2.5	105	8	55	4†	44	2.34		0.62	0	7	7	4	20	sw.	Prof. Joseph Peterson.
Lakeside	Navajo	6,500	7	64.0		85	8†	44	20	39	4.11		1.59	0	10	6	2	23		Agent E. P. & S. W. R. R.
Lewis Springs	Cochise	4,029	3								0.62		0.25	0	6					Vesto M. Slipher.
Lowell Observatory	Coconino	7,180	1								3.85		1.40	0	15	5	20	6	sw.	Miles McNeal.
McNeal	Cochise	4,150	2								1.41	+ 0.39	0.73	0	3	23	7	1	w.	Agent So. Pac. Ry.
Maricopa	Pinal	1,186	36	89.2	− 2.7	117	8	67	15	48	1.33	− 0.15	1.00	0	5	7	21	3	sw.	C. L. Diehl.
Mesa	Maricopa	1,244	17	83.5	− 3.8	106	7†	62	19	38	0.48	− 0.43	0.45	0	2	21	3	7	w.	Agent So. Pac. Ry.
Mohawk Summit	Yuma	538	13	92.9	− 1.2	116	3†	71	28	44	4.52		1.05	0	12	9	13	9	w.	Agent E. P. & S. W. R. R.
Naco	Cochise	4,579	3								5.53	+ 2.27	1.23	0	8	13	13	5	sw.	D. G. Goodfellow.
Natural Bridge	Gila	4,990	23								3.81	+ 2.85	1.95	0	5					J. W. Lawson.
Oracle	Pinal	4,500	21								5.49		2.35	0	10	1	11	19		Agent E. P. & S. W. R. R.
Osborn	Cochise	4,676	3								4.24		1.75	0	12	0	21	10	nw.	J. C. Hancock.
Paradise	....do	5,436	5	67.4		93	11	44	24	42	0.95	+ 0.07	0.80	0	4	25	4	2	sw.	M. A. Israel, M. D.
Parker	Yuma	345	13	87.3	− 4.2	115	7	60	17	43										Mart McDonald.
Payson	Gila	5,550	4																	
Phoenix	Maricopa	1,108	17	86.2	− 2.8	108	7	69	15	36	0.72	− 0.24	0.51	0	4	18	10	3	e.	U. S. Weather Bureau.
Phoenix (1)	....do	1,092	21	85.6	− 2.1	109	4†	65	7†	44	0.84	− 0.21	0.40	0	5	23	5	3	sw.	Geo. Acuff.
Phoenix (2)	....do	1,189	4	84.8		105	8	67	15	36	2.25		1.16	0	5	19	3	9	sw.	Salt River Valley Nurseries.
Pinal Ranch	Pinal	4,520	18								4.64	+ 1.30	2.01	0	6					Irion & Craig.
Pinto	Apache	5,660	8								1.17		0.42	0	5	14	16	1	sw.	Mrs. Celia F. Henning.
Prescott	Yavapai	5,320	44	67.5	− 3.6	91	8†	48	1†	39	2.21	− 0.97	1.00	0	8	21	9	1		John W. Flinn, M. D.
Quartzsite	Yuma	800	5	89.0		115	8	65	18†	45	1.61		1.06	0	2	20	8	3	sw.	W. E. Scott.
Redrock	Pinal	1,864	4																	W. J. Crowell.
Rice	Gila	2,665																		Arthur Pritchard.
Roosevelt	....do	2,175	8	86.2		106	8	69	30†	32	2.18		1.20	0	5	7	23	1	w.	U. S. Reclamation Service.
Sacaton	Pinal	1,280	5	85.6		113	8	65	15†	41	1.02		0.32	0	5					E. W. Hudson.
St. Johns	Apache	5,650	8	68.8		95	9	47	22	43[a]	2.62		1.10	0	5	6	14	11	w.	Alex. Shreeve.
St. Michaels	....do	6,950	25	67.1	− 0.2	90	8	47	21	41	1.11	− 1.38	0.55	0	5	9	12	10	sw.	Rev. A. Weber, O. F. M.
Salome	Yuma	1,875	5	82.3		107	5†	53	14	49	0.07		0.07	0	1	18	11	2	s.	Mrs. M. B. Swartz.
San Simon	Cochise	3,609	28																	Agent So. Pac. Ry.
Seligman	Yavapai	5,219	7	68.9		105	26	44	16†	47	T.		T.	0	0	19	0	12	sw.	Librarian, A., T. & S. F. Ry.
Sentinel	Maricopa	685	14	87.2	− 6.0	113	4†	63	12	41	2.53	+ 2.13	1.58	0	3	20	4	7	sw.	Agent So. Pac. Ry.
Silverbell	Pima	2,650	7	85.2		105	2†	65	13	33	1.25		0.50	0	3	20	0	11	s.	Imperial Copper Co.
Snowflake	Navajo	5,644	5	67.4		95	7	41	7	54	2.13		1.30	0	5	4	14	13	sw.	William J. Flake.
Springerville	Apache	6,862	2	62.5		86	9	44	21	38	2.91		0.72	0	14	10	9	12	sw.	U. S. Forest Service.
Supai	Coconino	3,200	6	80.4		104	8	54	1	43[b]	0.89		0.48	0	5					Laura B. Symons.
Tempe	Maricopa	1,165	8	85.8		110	4	66	15	41	1.85		0.56	0	4	16	11	4	se.	F. H. Simmons.
Thatcher	Graham	2,800	9	80.2		106	6†	50	16	48	1.15		0.76	0	5	7	22	2	w.	Prof. J. H. Larson.
Tombstone	Cochise	4,550	18	75.4	− 0.6	98	8†	57	30	32	2.05	− 1.76	0.78	0	7	8	21	2		F. N. Walcott.
Truxton	Mohave	3,947	3	76.0		98	5†	40	2	53	2.19		1.55	0	5	28	0	3		Truxton Canyon Ind. School.
Tuba	Coconino	4,500	13	74.2	− 0.9	98	9†	53	15	41[a]	0.35	− 0.45	0.23	0	3	18	4	9	sw.	H. P. Marble.
Tucson	Pima	2,390	32	82.6	− 2.7	106	8	64	7	41	0.96	− 1.46	0.33	0	9	5	24	2	nw.	University of Arizona.
Tucson (1)	....do	2,380	4	80.6		106	8	58	7†	48[a]	1.09		0.26	0	10	8	16	7	w.	James F. Record.
Tucson (2)	....do	2,526	1	81.1		104	8	61	7†	43	1.56		0.55	0	10	15	5	11	w.	U. S. Coast & Geodetic Surv.
Vail	....do	3,421	13			101	8†				2.32	+ 1.10	1.70	0	3	12	15	4		Agent So. Pac. Ry.
Walnut Grove	Yavapai	3,649	20								1.67	− 0.49	0.53	0	5					J. O. Carter.
Wickenburg	Maricopa	2,072	13																	Agent S. F. P. & P. Ry.
Willcox	Cochise	4,164	32	74.1	− 4.3	98	6†	50	11	43	1.96	− 0.52	0.80	0	6	0	19	12	s.	Agent So. Pac. Ry.
Williams	Coconino	6,750	12	65.2	− 1.4	88	22	40	2	41	1.96	− 0.80	0.55	0	5	20	11	0		E. J. Nordyke.
Winslow	Navajo	4,853	4																	John F. Bauer.
Yarnell	Yavapai	4,700	12																	E. L. Bartholomew.
Yuma	Yuma	141	32	88.8	− 1.3	113	6	66	19	42	0.14	− 0.21	0.10	0	2	27	4	0	sw.	U. S. Weather Bureau.
Yuma (1)	....do	150	5	82.6		108	6	55	19	48	0.17		0.09	0	3	25	5	1	s.	E. L. Crane.
Nevada.																				
Caliente	Lincoln	4,407	2	75.4		100	23	42	18†	53	0.00		0.00	0	0	31	0	0	se.	Salt Lake Route.
Logan	Clark	1,355	5	82.6		108	8	55	17†	48	0.00		0.00	0	0	31	0	0	s.	O. W. Jarvis.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 9, Colorado Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Battle Mountain	Snake																																
Bigpiney	Green	.24		.10											.22		.10	.25										.50	T.				1.41
Daniel	do			.35	T.												.21	.60	.40									T.	T.				1.56
Eden	do	.25		.01		T.		.01							T.	.04		.41	.11									.03	.09				0.95
Green River	do	.64		.24													T.	T.	.30	.04								.09	.02	T.	.13		1.46
Pinedale	do	.36		.32																													0.68
Rambler	Snake																																
Willow Creek Cabin	Green																																
Colorado.																																	
Ashcroft	Grand	.05												.02	.33	.25	.11	.02	.01									.02	.03	.21	.09	.03	1.17
Breckenridge	do																																
Buford	White																.80	.25											.16	.36	.34		1.91
Cascade	San Juan												.13	.14	.66	.61	.01	.36										.05	.01	.03	.54	.12	2.66
Cedaredge	Gunnison																																
Chromo	San Juan		.15																T.	1.00				.20	.10			.10	.30				1.85
Cochetopa	Gunnison					.02								.20	.30	.10	.36													.26	.20		1.44
Collbran	Grand	.06													T.	.43	.19	.02										.20	.55	.16	.56	.05	2.22
Columbine	Yampa	.48			.09						.07	.05				.35	.07											.30	.20	.37	.43		2.41
Columbine Ranch	Gunnison	.25												.17	.90	.12	T.											.30	T.	.19	.22	T.	2.15
Corona ‖	Grand	.32	.14						.14							.22	.22													.32	.28		1.64
Cortez	San Juan																																
Craig	Yampa																																
Crawford (near)	Gunnison	.08													.15	.56	.13	.02									.01	.20		.05	.28	.02	1.50
Crested Butte	do							T.						T.	.65	.20	.10	.08												.30	.32		1.65
De Beque	Grand																																
Delta	Gunnison													.03	.11	.16	.14	T.										.09		.03	T.		0.56
Dillon	Grand																																
Durango	San Juan												T.	.55	.66	.35	.01	.14									.01	.03		.03	.59	.20	2.57
Eureka	do													.15	.21	.13											.13			.19		0.81
Fraser ‖	Grand	.02					.04	.11							.05	.30		.22										T.	.16	.02		T.	0.92
Fruita	do	.12												T.		1.09	.11	.05										.05	T.	.03	T.		1.45
Glade Park	do	.08												T.		.37	.13	T.										T.	.07	.24	T.		0.89
Gladstone	San Juan			.04	.07	.03	.01	T.	.05	.03				.30	.45	.39	.37	.45											.09	.19	.31		2.78
Glenwood Springs (near).	Grand	.20													T.	.20	.30											.30		.10	.20		1.30
Grand Junction	do													.06	.15	.76	.02	.05										.21	T.	.04	.06	T.	1.35
Grandlake	do					T.									T.														T.	.20	.10	.10	0.40
Grand Valley	do	.09						T.						T.	T.	.49	.43	.02										.06		.09	.12	T.	1.30
Gunnison	Gunnison	T.		T.										.05	.54	.20	.05											T.			.27	.01	1.12
Hesperus (near)	La Plata	.23												.40	.80	.25		.11										.10			.50	.55	2.94
Horsefly	Gunnison													T.		T.	T.	T.									T.		T.	.38	.83	T.	1.21
Ironton	do					T.							T.	T.	.25	T.	.12	.70			T.						T.	T.	.25	.20	T.		1.52
Lake City	do	.13											.02	.17	.41	.01	.01	.10	.01	.11	.03							.03	.02	.04	.32	.03	1.44
Lay	Yampa	.11	.06	.01												1.35	.02	T.									T.	.10		.18	.39		2.22
Mancos	San Juan													.07	.25	.61	.12					.32							.02	.03	.64	.43	2.49
Marble	Grand	.27					.05								.14	.45	.08	T.										.24		.21	.20	.05	1.69
Marshall Pass	Gunnison															.20	.30	.40															0.90
Meeker (near)	White	.36	.05													.78	.08										.06	T.	.04	T.	.38		1.75
Montrose	Gunnison														.03	.54	.03											.29		.03	.26		1.18
Nast	Grand																																0
Pagoda	Yampa																																
Pagosa Springs	San Juan													.04	.54	.41		.06				T.				.09		T.		T.	.17	.11	1.42
Palisades	Grand			T.											T.	.08	.60											.09		T.	.14		0.91
Paonia	Gunnison	.36													.05	.38	.36	.05	T.									.32		.04	.09	.05	1.70
Pitkin	do														.65		.30	.14												.13	.09		1.31
Pyramid	Yampa	.26														.26												.17	.23	.25	.22		1.39
Rangely	White																																
Redcliff	Grand																																
Redvale	San Miguel														.63			T.									T.		T.				0.63
Rico	Dolores												.05		.09			.03	.12				.08		.12						.05		0.54
Rifle	Grand	.07													T.	.19	.05	T.										.20	.22	.11	.18		1.02
River Portal	Gunnison	.14												.01	.14	.07	.08	.06									T.	.13			.69	.03	1.35
Sapinero (near)	do	.03	T.			T.								T.	.24	.16	.10	.11									T.	.12	.01	.10	.17	T.	1.04
Shoshone	Grand																																
Silverton (near)	San Juan												.20	.10	.35	.34		.75													.18	.32		2.24
Spruce Lodge	Grand	.50						.12	.15					.15	.08	.34	.10	.22												.18	.15	.04		2.03
Steamboat Springs	Yampa	.84														.12	.24	.12	.01								.18	.02	.80	.11	.60	.20	3.24
Tacoma	San Juan													.26	.92	.82		.20								.04		.06			.52	.03	2.85
Telluride	San Miguel	.04											.10	.02	.14	.38	.13	.26										.05		.05	.45	1.06	2.68
Terminal Dam	San Juan		.08											.25	.86	.39		.33	.15							.05					.79	.32	3.22
Uncompahgre Plateau	Gunnison															.48												.32		.08	.06	.24		1.18
Yampa (near)	Yampa	.17	.12					T.								.67		T.										T.		.23	.32		1.51
Utah.																																	
Aneth	San Juan													.05	.03			.05													.04	.13	0.30
Bluff	do														.30												.17			.04			0.51
Boneta	Green	.12													.05			.22									.06			.41			0.86
Castle Dale	do														.75												.75		.60				2.10
Cisco	Grand																																
agon	Green	.18														T.	.03		T.							T.		.27	.16	.47			1.11
uchesne	do	.15													.08		T.	.08	.01									T.		.11	.06		0.49
lkhorn	do	.45														.35		.20				.06					.10	.10	.06	.32			1.64
E ery	Colorado																								.70			.30					1.00
Escalante	do																																
Fisher Valley	Grand																																
Fort Duchesne	Green	.02														T.		T.	.01									.01	T.	.01	.02		0.07
Fruitland	do	.11		.16										.43	.03	.22														.26			1.21
Grayson	San Juan	.02												.15	.75	.10												.10			.05		1.17
Green River	Green															.13												.09		.12	.02		0.36
Hanksville	Colorado																																
Hite	do														T.	.12	T.	T.									T.	T.	T.	T.	.02	T.	0.14
Hurricane	do					.15										.50														20	.25	.10	1.20
Kanab	do													.21												.02	T.	.16	.25	1.10	.43		2.17
LaSal	Grand													T.	.08	.02										T.			T.	.07	.08		0.25
Leeds	Colorado	.12													.55												.60		.10				1.37
oa	do																																
Manila	Green	.19		.10														.05	.31											.11			0.76
Moab	Grand													T.		.08											.03	T.	.13	.06			0.30
Monticello	do																																

TABLE 2.—*Daily precipitation for August, 1912. District No. 9*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Utah—Continued.																																	
New Harmony	Colorado														.24												.23	.01		.90	.27		1.72
Orderville	do		.07																									.42		T.	.41		2.59
Pine Valley	do	.66	.52									T.	.35														.23	.42		T.	.41		2.59
Price	Green																										.03	.30					0.33
Ranch	Colorado												T.	T.	T.														T.	1.30			1.30
San Rafael	Green																																
St. George	Colorado		.54												.10												.08			.17	.09		0.98
Scofield	Green	.31	.10							T.					.33	.06		.21										.05	.07	.09			1.22
Springdale	Colorado																																
Strawberry Tunnel—East	Green	.03	.22												T.	.15		T.												.44			0.84
Teasdale	Colorado														.03	.05													.09	.04			0.21
Thompsons	Green													T.		.08	.05											T.		T.	.05		0.18
Tropic	Colorado			.13												T.	.17											.08	T.	.90	T.		1.28
Troutcreek	Green	.37				.11	.05						.22		.40	.30	.01	.15	.15						.01	.15		.55	.20	.30			2.97
Ranger	do																																
Vernal	do	.13		.03												.22		.02	.01									.10		.09			0.63
Victor	do										.01																	.10					0.11
White Rocks	do	.78														.13		.05	.50									.02		.10	.18		1.76
Woodside	do	.35																										.16	T.	.10	T.		0.61
New Mexico.																																	
Alma	Gila			.70	T.	.30					.05	T.	T.	T.			.25			.20	T.	T.	.30		.05	.10		T.	T.		.41	.03	2.39
Aragon	do			.10	T.							.45					T.				T.	T.			T.			.10					0.65
Aztec	San Juan	T.												.14	.74	T.						T.					.02				.46	.69	2.05
Berger's Ranch	Little Colo				T.							.26	.08	.77	.22	.28	.34	.13		.03		.41			.02		.28	.20		T.	.42		3.44
Blackrock	do					.01						.01		.02	.53		.01			.01							.34	.04		.11	.18		1.26
Bloomfield	San Juan	T.												.43	.38	.02	.01	.01	T.			T.		T.	T.		.02	T.	T.	T.	.14	.18	1.21
Cambray	Mimbres		.10	.25	.04								.03	.72	.28	.97	.03				.14			.75	.04	.01		2.20			.02			5.58
Cliff	Gila				T.									T.		.10	T.		T.	.10		T.			.10				.60	T.	.60		1.50
Columbus	do		27		T.						1.23		.05		.25		.17		1.02	.08	.98			.55				.06			.06		.65	5.37
Deming	Mimbres													.15		.75	.30		.30		.10			.84						1.60			4.04
Dulce	San Juan													.90	.40	.42		.20													.38		2.30
Fort Bayard	Mimbres		T.	*	.41	.35	T.					T.	T.	.03		.60	.38			.56	.32	.05				.25		T.	.31	.01	*	1.20	4.47
Fruitland	San Juan													*	.60			T.													T.		0.60
Gage	Mimbres					.20					.25		.10		.21				.60		.30			.90						.70			3.26
Gila Planting Sta'n	do				1.24	.03						T.	.02	T.		1.13	.49	T.		.87	.06	.06	T.		1.21			T.	.02	T.	1.48	.36	5.97
G. O. S. Ranch	Gila		T.	.51	.34	.02					T.	.13	.48	.02		.07	.12			.11	.28			.68									2.76
Hachita	do										.10	.60		.30		.52				.57	1.12			.09	.24	T.		.22			.15	.55	4.46
Haynes	San Juan														.80		.15														1.05		2.00
Hermanes	Gila		T.	T									.28	T.	.05	.80			T.			.40		.65					1.25	.15			3.58
Lordsburg	do											T.		.04		30				.25				1.55									2.14
Luna	do			T.			T.				.14	.09	T.	.07	.22	.04		T.	T.			.13				.22		.22	T.	.11	.28	T.	1.52
Mimbres	Mimbres			.62	.06	.22							.12				.66			.88		.13			.06	.29			.05		.74	.12	3.95
Pinos Altos (near)	Gila				.23	.79	.04					.03		.15		.03		.60	.08	.42	.04	.03			.91	.60					*	1.47	5.42
Pratt	do					.15						.28			.70			1.15							.40	T.		.05		T.	T.		2.73
Putnam	do																.30																0.30
Redrock	do					.30	.05						.03	.45			.25		.45								T.			.50			2.47
Rodeo	do				T.								.40			.20			.25									.98				.40	2.23
Silver City	Mimbres			.08	.16	T.						.02		.05	.07	T.	T.			T.	.02	.02		.14	.10	T.	T.	T.	T.	.60	.02		1.28
Arizona.																																	
Allaires Ranch ‖	Sonora											.07					.08		.25					.14		.68	.01	.07	T.	.15			1.45
Alpine	Gila			.21	.06						.05	.22	.01	.15	.37		.70	.15			.32					.06		.35	.07	.01	1.41	.01	4.15
Aztec	do												.52															.59					1.11
Benson	San Pedro						.12						T.	.55			.10	.05	.04					1.00	.17		.05	.18	.05		.15		2.46
Bisbee	do				.09								1.91	.15	.01			.03	2.57	1.83							1.61	.06			1.89		10.15
Blue	Gila						.10				.11	.05														.40		.25			.89		1.80
Bonita	do							.10						.32									.20		T.				2.50		.10	3.22
Bowie	do													.35			.50							.80		.20	.28		.55		.20		2.88
Buckeye ‖	do										.03	.06											T.	23			.05	.28	T.		T.		0.65
Canille	San Pedro				T.					T.	.15	1.84	.04	T.	.03		.46	.05	.14	.11		T.		T.	.15	.74	.67	.22	T.	.43	.09	.01	5.13
Casa Grande	Gila										.03	.06	.21	.02									.02					.12			.20		0.66
Casa Grande Ruins	do				.04						T.		.05	.10			T.						T.			T.			.25		.20	.75	1.39
Cavecreek	Verde																																
Chin Lee	San Juan													T.	.70	.01	T.					.12				T.	T.	.65		T.	T.	.29	1.77
Chlarsons Mill	Gila																																
Clifton	do					.14								T.	.46		.02			.02		.03		.43						T.			1.10
Cline	Salt												.24	.36														.58				.60	1.80	3.58
Cochise	Desert													.45					.80					.30				.10		.15	.40		2.20
Columbia	Agua Fria													.13	.60									.50	.15			.15	.10				1.63
Courtland	White			.38								.50	.04	.08			.77						.12			1.55				1.49			4.93
Dos Cabezos	Desert															.55												2.00			.45	.06	3.06
Douglas	Sonora			.01	.01						T.		2.07	.18	.27	.03			.37	.03	.16			.04	.05		.47	.02	.42	.02		.02	4.17
Dudleyville	Gila			.10	T.								.02	.14	.12		T.		T.	.06	.05				.15	.49	T.	.68	.02	.12	.04	.81	2.80
Fairbank	San Pedro												.10	.53									.80	.10		.10	.30	.14	.10		.15		2.32
Flagstaff	Little Colo												.06	.07	.06					T.	.05	T.		T.	.29			T.	.04	T.	.04		0.61
Flagstaff (1) ‖	do	.12												.04	.06	T.						T.	.03		.02	.41		T.	.01	.05	T.	T.	0.74
Florence ‖	Gila																													.70			0.70
Fort Apache	Salt			.09								.06	.12		.64	.06										1.39		T.	.19		.35	.89	3.81
Fort Huachuca	San Pedro											T.	1.20	.10			.80	T.	.40	.10				.50	.20	.20	1.20	.50	T.	.10	1.30	T.	6.60
Fort Mojave	Colorado																													T.			T.
Gilabend ‖	Gila											.70	.56											.17				1.07	.18				2.68
Globe	Salt				.02							.59	.05	.12	.14					.07						.31	.07	.43	.02		.08	.70	2.60
Grand Canyon	Colorado													T.														T.					T.
Grand Canyon (1)	do														.03												.15				.03	.12	0.33
Granite Reef Dam	Salt												T.	.08									.04	.37				1.43	.17		.02	.01	2.12
Greer	Little Colo	.15		.12	.26							.55		.31	.15					.39	.15					.12	.13	.75			.80		3.88
Heber	do																																
Hereford	Gila												1.50										.75	.65		1.20				.15	.25		4.50
Holbrook	Little Colo												T.			T.						.42				.93				.20	.10	.07	1.72
Indian Oasis	Desert																											.65				.75	1.40
Intake	Salt												T.													.47		.16	.73				1.36
Jerome	Verde												T.	.18	.07			T.			T.							T.				.03	0.83
Keams Canyon	Little Colo	.55																						32					.25				0.57
Kingman	Colorado											.08		T.	T.	.32	T.		1.24						T.		62	.06			60		2.34
Lakeside	Little Colo			.36	.30																			11		28		1.59	.09		.10		4.11
Lewis Springs	San Pedro			.01							.05		.52	.12	T.													.05					0.62
Lowell Observatory	Little Colo												.10		.15						.05	.02			.25								
McNeal	White			.29	.03	.03								1.40	.19	T.	.10		T.	.06		T.		.12	.12	.06	.12	.42	.35	.50	T.	.06	3.85

TABLE 2.—*Daily precipitation for* ***August****, 1912. District No. 9*—Continued.

Stations.	Watershed	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Arizona—Contd.																																	
Maricopa	Gila											T.	.73															.65				.03	1.41
Mesa ‖	Salt											.10	.10		T.								.03				T.	1.00			T.	.10	1.33
Mohawk Summit	Gila																							.03			.45						0.48
Naco	San Pedro				.37	.05							1.05	.06					.01					.90	.02	.65	.20		.03	.25	.93		4.52
Natural Bridge	Verde												.60	1.00										.35	1.00			.68	.05	T.	.62	1.23	5.53
Oracle	San Pedro												T.															.11	.06	1.04	.65	1.95	3.81
Osborn	do					.12						2.35		.03		.03			.62					.45		1.10		.37	.35	.07			5.49
Paradise	Desert		.12	T.								T.		1.75	.47	.16	.40					T.	T.		.62		.18	.06	.04	.07	.08	.29	4.24
Parker	Colo																								.08	.05		.02	.80				0.95
Payson	Verde																																
Phoenix	Salt												.20	T.	T.		T.						T.	.01	T.	T.	T.	.50	.01			T.	0.72
Phoenix (1)	do												T.	.11	.05		T.							T.	T.	.16		.12	.40		T.	T.	0.84
Phoenix (2)	do												1.16	T.	.23		T.						T.	T.		T.	T.	.22	.33			.31	2.25
Pinal Ranch	Gila												.19	.05				.04									.57		1.78			2.01	4.64
Pinto	Little Colo	T.	T.	.10	T.								T.			T.	.14		T.					T.	T.			.38	.13		.42		1.17
Prescott	Hassayampa												.02	.26	1.00								T.	.05	.04		.08	.39				.37	2.21
Quartzsite	Colorado																								.55				1.06				1.61
Redrock	Santa Cruz																																
Rice	Gila																																
Roosevelt	Salt												.18															.65	.15		.45	.75	2.18
Sacaton	Gila																							.20				.32		.06	.28	.16	1.02
St. Johns	Little Colo												T.	T.			.60					.07						.65			1.10	.20	2.62
St. Michaels	do			T.		T.									30					.05						T.	.55	.10		.11	T.		1.11
Salome	Colorado													.07																			0.07
San Simon	Gila																																
Seligman	Verde														T.									T.			T.	T.	T.	T.			T.
Sentinel	Gila												1.58												.03			.92					2.53
Silverbell	Santa Cruz																							.40					.50		.35		1.25
Snowflake	Little Colo				T.						T.				26	.04				.30	.23								T.		1.30		2.13
Springerville	do		.20	.10								.25		.45	.22		.32	.06			.03	T.					.06	.36	.01	.08	.72	.05	2.91
Supai	Colorado		.02											.03															.48	.15	.21		0.89
Tempe	Salt												.23	.56									T.	T.				.50	.56			T.	1.85
Thatcher	Gila		T.									T.	T.	.02	T.		T.			.25				.76				.05	T.		.07		1.15
Tombstone	San Pedro			.21															.27					.26		13		.28		.78	.12		2.05
Truxton	Colorado																			.04				T.				1.55	.50	.10			2.19
Tuba	Little Colo		.23												.02													.10	T.				0.35
Tucson	Santa Cruz										T.	T.	T.	.02			.25	.06						.10	T.			.02	.12	.04	.02	.33	0.96
Tucson (1)	do												.01	.02			.13			.13				.08			.03	.23	.17		.26	.03	1.09
Tucson (2)	do										.06		.06	T.			.17	.06				.07		.15	.04		T.	T.	.11	T.	.29	.55	1.56
Vail	do										.02		.60											1.70									2.32
Walnut Grove	Hassayampa												.53		40									.04					30	.40			1.67
Wickenburg	do																																
Willcox	Desert											T.	.09					20	0.53									.80		.16	.18		1.96
Williams	Colorado														46	.30								.30	.55			.35					1.96
Winslow	Little Colo																																
Yarnell	Hassayampa																																
Yuma	Colorado																							T.				.04	.10				0.14
Yuma (1)	do																							T.	.02			.09	.06	T.			0.17
Nevada.																																	
Caliente	Colorado																																0.00
Logan	do																																0.00

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.

‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for* ***August, 1912.*** *District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.										Utah.								New Mexico.			
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		St. George.§§		Bloomfield.		Fort Bayard.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min
1....	75	40	76	49	82	53	88	64	75	39	72	53	75	48	75	40	80	55	94	73	94	61	92	57	93	61	86	52
2....	73	40	74	44	86	48	93	61	70	38	78	49	78	45	77	43	89	53	99	66	97	55	92	61	95	53	89	59
3....	75	41	84	49	85	47	94	65	74	40	81	48	79	45	80	45	91	54	100	67	99	58	93	56	95	54	87	60
4....	75	37	83	43	84	49	94	56	75	37	81	42	78	38	83	51	90	53	100	65	98	53	96	54	93	59	84	59
5....	73	32	80	39	86	46	91	58	78	35	76	41	76	35	80	50	91	47	101	65	98	52	98	52	95	59	82	50
6....	61	38	83	53	84	47	94	60	76	36	80	40	77	35	79	46	94	46	100	63	100	52	99	50	92	50	88	59
7....	63	39	82	48	84	46	86	61	74	36	72	40	68	34	81	46	86	49	100	65	95	54	101	52	92	47	87	60
8....	75	40	73	43	83	44	86	54	73	35	74	37	76	34	82	45	86	46	102	67	97	50	102	54	91	48	90	61
9....	82	48	83	41	88	44	95	60	80	32	85	40	82	33	81	40	97	44	103	65	101	52	102	57	95	47	91	61
10....	75	45	94	44	85	48	94	62	78	37	81	40	81	36	79	40	94	48	100	75	97	54	98	62	92	52	89	63
11....	76	36	87	43	85	45	93	62	79	34	81	41	81	32	78	37	94	43	98	80	99	53	95	58	93	49	86	58
12....	74	32	86	41	82	48	92	59	78	38	80	42	87	35	73	38	96	46	100	70	101	54	96	56	87	59	79	57
13....	75	32	88	42	79	52	93	63	78	40	82	47	82	38	82	42	94	47	99	73	100	57	95	65	90	57	75	52
14....	77	33	86	47	65	54	82	64	64	49	73	46	73	41	85	46	90	58	90	74	91	64	83	57	68	58	80	55
15....	80	36	85	54	68	51	78	60	69	41	68	54	67	51	82	45	82	58	89	69	90	63	93	54	81	57	77	48
16....	69	34	72	42	76	46	80	57	65	45	77	42	75	35	85	46	87	57	94	59	91	51	94	62	86	54	76	54
17....	64	40	84	49	69	53	78	61	71	46	73	44	79	40	83	45	84	52	94	70	90	64	90	58	83	60	78	55
18....	63	35	75	42	76	49	88	61	75	37	75	41	73	40	82	44	81	50	92	72	91	67	92	52	86	53	79	54
19....	60	30	64	34	80	47	86	57	76	40	78	38	77	32	80	47	87	43	95	59	94	49	93	52	89	63	75	55
20....	60	30	79	37	82	46	89	56	74	42	79	33	77	32	81	43	88	44	97	60	98	48	96	52	89	53	73	55
21....	70	35	82	58	78	48	90	59	71	43	80	39	78	31	84	50	89	44	99	61	99	48	102	52	90	56	76	57
22....	75	32	84	58	85	44	91	60	73	45	78	39	78	30	85	52	92	45	102	63	99	48	102	51	92	56	79	53
23....	76	31	85	57	85	46	92	59	76	33	80	36	80	30	86	51	95	44	102	66	100	50	103	54	94	55	79	58
24....	78	32	87	67	82	47	94	61	78	33	83	40	80	29	88	52	96	42	100	65	97	51	96	68	93	56	75	58
25....	78	33	88	71	85	49	94	62	79	34	82	42	87	30	85	53	98	44	100	69	102	55	98	63	94	56	79	55
26....	81	40	90	66	86	47	97	64	80	35	81	38	89	33	82	51	97	45	100	65	101	57	93	68	97	57	79	60
27....	71	50	94	57	78	55	82	65	75	50	75	55	77	31	81	52	89	54	94	73	94	59	92	70	87	60	78	59
28....	74	36	76	59	80	49	86	61	75	38	77	45	79	37	82	53	89	50	95	75	95	58	92	69	89	54	80	57
29....	70	34	85	55	78	56	81	62	71	41	75	55	71	53	85	53	77	58	89	73	87	63	84	71	88	55	79	57
30....	66	30	74	44	68	56	78	58	70	49	76	48	69	50	78	52	79	49	86	65	88	57	81	62	78	63	76	55
31....	69	25	76	53	73	52	84	55	70	45	72	46	71	50	71	53	86	44	91	65	90	55	89	57	83	58	75	53
Mn...	72.0	36.0	82.0	49.3	80.2	48.8	88.5	60.2	74.2	39.5	77.6	43.3	77.4	37.5	81.1	46.8	89.3	48.8	96.9	67.6	95.8	55.2	94.6	58.3	89.4	55.5	80.8	56.4

Date.	Arizona.																				Logan, Nev.	
	Bisbee.		Flagstaff.		Fort Apache.§§		Grand Canyon.§§		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.	84	60	73	42	87	56	76	54	105	82	101	71	80	48	83	49	98	67	106	75	98	68
2.	88	63	76	46	90	55	78	52	99	79	106	77	87	53	86	56	101	67	106	71	101	66
3.	87	63	77	44	99	56	80	52	98	71	105	74	86	51	86	52	101	68	106	71	102	62
4.	88	62	80	43	91	59	80	54	105	75	106	74	87	51	85	50	103	74	111	69	105	57
5.	86	63	79	48	93	55	78	52	110	74	106	76	87	54	87	57	99	71	110	71	105	61
6.	90	63	80	46	93	53	84	54	114	73	107	73	90	51	88	57	103	66	113	74	105	59
7.	89	64	81	43	93	52	86	52	115	72	108	72	89	51	88	50	104	64	112	73	106	60
8.	90	64	82	44	95	51	84	58	114	72	108	75	91	55	90	50	106	65	111	72	108	63
9.	89	65	79	45	100	54	84	56	108	72	105	77	88	55	88	50	104	68	107	75	106	63
10.	80	65	76	54	92	58	82	54	104	74	100	76	84	53	86	56	97	73	106	77	102	62
11.	80	64	77	48	90	56	80	54	103	74	100	78	84	53	80	56	92	71	102	76	102	63
12.	72	57	73	46	74	58	80	52	104	72	94	69	82	50	83	54	86	71	102	81	102	68
13.	75	61	73	52	78	58	80	54	99	74	89	70	73	57	72	53	89	67	101	75	101	65
14.	78	60	72	55	82	58	82	52	104	75	95	72	78	54	71	54	92	69	103	76	98	77
15.	80	58	73	40	85	50	80	50	104	72	98	69	78	51	78	52	98	67	104	68	99	64
16.	72	60	72	44	89	53	78	48	101	63	100	75	79	51	78	49	95	65	104	67	100	59
17.	76	58	70	47	82	55	75	49	100	60	98	75	77	51	78	54	92	66	101	76	96	55
18.	77	52	71	51	86	55	78	48	97	64	97	75	76	48	79	48	98	69	100	70	96	57
19.	73	56	73	42	77	59	75	43	100	65	97	69	80	48	79	50	95	70	102	66	99	59
20.	77	59	74	44	87	51	73	47	102	68	100	72	85	51	83	50	97	67	103	70	100	66
21.	76	60	79	44	89	55	72	45	107	66	102	73	91	50	88	47	101	68	103	72	102	64
22.	73	61	80	41	96	54	73	42	111	73	105	74	85	63	85	49	101	70	109	74	106	59
23.	73	60	79	46	86	56	75	42	100	75	93	73	83	56	87	48	99	70	99	85	107	62
24.	73	60	75	56	85	60	73	40	112	70	98	73	80	52	85	54	96	69	102	80	103	70
25.	76	60	77	47	92	56	74	42	107	77	103	75	81	57	85	55	99	68	104	78	104	66
26.	82	61	75	51	73	56	72	42	103	74	95	77	75	61	83	54	95	74	101	84	103	73
27.	77	59	69	56	75	61	74	42	100	75	83	71	75	56	75	54	87	72	96	80	98	75
28.	77	60	72	55	82	56	74	46	89	74	91	71	81	55	75	51	91	69	96	78	95	76
29.	77	60	69	49	86	55	72	42	97	72	95	74	76	53	80	51	93	70	96	75	93	73
30.	74	59	71	49	77	60	70	44	96	62	90	76	75	54	76	55	87	71	97	68	90	66
31.	74	59	70	48	78	58	.....	42	95	62	92	74	75	53	73	55	93	68	98	69	96	55
Mn.	79.5	60.4	75.1	47.3	86.5	55.8	77.4[a]	48.5	103.3	71.3	98.9	73.5	81.9	53.1	81.9	52.3	96.5	68.8	103.6	74.1	100.9	64.3

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

August, like the preceding month, was unusually cool for the district as a whole. In the Utah area the temperatures averaged as cool as any previous August except in 1899. This cool weather was due to an unusual number of high-pressure areas passing over the Northwest, although the pressure over the Great Basin averaged about normal.

The precipitation averaged about normal for the district as a whole. There were several severe local storms causing considerable damage in limited areas. In Cache Valley, in the northern part of the Utah area, a heavy wind and hail storm occurred, causing thousands of dollars damage to grain and fruit besides injury to other property. The hailstones denuded the fruit trees of leaves, bruised the fruit, and perforated the leaves of the sugar beets; while the wind beat the grain and alfalfa to the ground.

At Reno, Nev., the heaviest precipitation known in one hour, 0.93 inch, fell on the 2d, flooding streets and basements. At Mazuma, Nev., another flood occurred on the 2d, doing considerable damage to roads, telephone lines, and other property. A wall of water 10 feet high is said to have swept down the canyon, destroying everything in its course. When peals of thunder were heard, persons in the canyon fled to the hills, and while no lives were lost there were some narrow escapes.

The average number of rainy days was 4, clear days 18, partly cloudy days 8, and cloudy days 5.

TEMPERATURE.

The temperature for the district averaged 66.6°, or 2° below normal. The local mean temperatures ranged from 76.5° (at Lemay, Utah) to 53.7° (at Woodruff, Utah). The highest local means occurred in the more level portions of the Utah area and in southern Nevada, while the lowest occurred in the extreme northeastern portion of the district.

Every station having a record long enough to compute a normal reported monthly mean temperatures below normal. The greatest minus departures occurred generally in the northern portion of the Utah area and in central Nevada.

The first week of the month was cool, and a few stations reported their highest temperatures during this period. This was followed by a warm spell of only a few days, when the weather turned cool again, and so remained until about the 20th. From this date a week of moderately high temperatures prevailed, when most of the maximum temperatures were observed. The last few days of the month were quite cool, the mercury falling to the freezing point and below at some stations.

The 18th, 19th, 30th, and 31st were the coldest days in the district, most of the stations reporting temperatures below freezing, the lowest being 23° at Cliff, Oreg., on the 23d; Burns, Oreg., on the 25th; and at Quinn River Ranch, Nev., on the 30th. The lowest in the other States having areas in this district were 29° at Cokeville, Wyo., on the 31st; 30° at Grace, Idaho, on the 31st; 24° at Woodruff, Utah, on the 19th; and 28° at Tahoe, Cal., on the 30th.

The afternoon temperatures of the month were moderate, many stations reporting maximums of less than 90°. The following are the highest temperatures that occurred in the various areas of the several States in this district: 90°, at Border, Wyo., on the 26th; 92°, at Weston, Idaho, on the 9th; 103°, at Low, Utah, on the 25th; 100°, at Burns, Oreg., on the 23d; 81°, at Tahoe, Cal., on the 6th; and 110°, at Jean, Nev., on the 8th.

PRECIPITATION.

The precipitation averaged nearly normal. The map showing the departure of the August rainfall from the normal exhibits the usual phenomenon of summer rain distribution, stations quite near one another reporting amounts some above and others below normal.

Compared with the normal, large amounts fell in the northern half of the Utah area and in the northeastern and central portions of the Nevada area.

The largest monthly amount was 2.55 inches at Pine Cliff Ranch, Utah, while 13 stations reported no rain or only a trace.

Three rainy periods marked the weather of the month—one from the 1st to the 3d, another from the 13th to the 18th, and the last beginning on the 26th and lasting a few days.

MISCELLANEOUS.

The cooperative observer, Mr. H. R. Antes, of Aneth, Utah, reported an earthquake shock, occurring at about 2.12 p. m. August 18. It was of sufficient force to shake the chair on which he was sitting.

TABLE 1.—*Climatological data for August, 1912. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	10	59.6	− 0.7	90	26	31	31	49	1.34	+ 0.31	0.65	0	4	12	9	10	w.	S. W. Condron.
Cokeville	do	6,204	2	57.2	.....	89	14	29	31	54	1.78	.....	0.55	0	8	24	4	3	w.	E. J. Tuckett.
Evanston	do	6,860	16	58.8	− 2.1	87	26	33	31	47	1.51	+ 0.55	0.42	0	6	20	10	1	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	6,171	4	.....	.....	.....	.....	.....	.....	.....	1.23	.....	0.58	0	4	24	6	1	.....	F. W. Boehme.
Grace	Bannock	5,400	5	64.0[b]	.....	90	9†	30[c]	31	47[c]	1.93	.....	0.90	0	7	17	6	8	n.	Donald R. Shirk.
Paris	Bear Lake	5,946	17	59.4	− 3.1	87	26	32	31	45	1.55	+ 0.66	0.62	0	6	19	5	7	sw.	John Norton.
Weston	Oneida	4,460	14	64.0	− 2.6	92	9	38	30†	49	2.25	+ 1.13	0.98	0	7	22	2	7	sw.	Wm. T. Chatterton.
Utah.																				
Alpine	Utah	4,900	13	.....	.....	.....	.....	.....	.....	.....	1.13	− 0.24	0.34	0	5	21	10	0	.....	T. F. Carlisle.
Beaver	Beaver	6,000	8	66.4	.....	90	10†	39	30†	41	0.70	.....	0.22	0	5	15	15	1	s.	M. J. Shelton.
Black Rock	Millard	4,872	8	67.6	.....	96	8	34	19	53	T.	.....	T.	0	0	19	11	1	s.	W. D. Livingston.
Burrville	Sevier	6,800	1	60.1	.....	86	9	34	31	44	0.15	.....	0.10	0	2	.....	.....	.....	.....	F. R. Curtis.
Castle Rock	Summit	6,244	7	.....	.....	.....	.....	.....	.....	.....	2.28	.....	0.70	0	9	18	7	6	w.	David Moore.
Cedar City	Iron	5,750	7	71.0	.....	92	23	53	1	30	0.47	.....	0.18	0	5	20	4	7	sw.	Parley Dalley.
Center	Tooele	4,250	.....	67.2	.....	95	9†	38	19	54	0.22	.....	0.19	0	3	20	5	6	s.	L. C. Peterson.
Clarkston	Cache	5,930	.....	.....	.....	.....	.....	.....	.....	.....	2.45	.....	0.95	0	4	18	11	2	.....	W. J. Griffiths.
Corinne	Boxelder	4,240	42	69.0	− 5.4	99	9	40	18	45	1.82	+ 1.24	1.00	0	3	14	4	13	.....	A. C. Murphy.
Deseret	Millard	4,541	17	70.4	− 0.8	96	24	43	19†	45	0.16	− 0.41	0.08	0	3	22	6	3	s.	S. W. Western.
Erekson	Tooele	4,850	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. W. Erekson.
Enterprise	Washington	5,750	6	.....	.....	.....	.....	.....	.....	.....	0.87	.....	0.87	0	1	16	5	10	s.	John Day.
Farmington	Davis	4,267	11	69.4	− 1.0	90	1†	45	18	40	1.52	+ 0.65	0.60	0	6	21	10	0	s.	Charles Boylin.
Fillmore	Millard	5,100	20	73.8	− 0.6	100	25	46	19	37	0.27	− 0.68	0.11	0	5	.....	.....	.....	.....	J. J. Starley.
Frisco	Beaver	7,318	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Essen Nordberg.
Garrison	Millard	4,850	9	67.6[1]	.....	92	30	36	18†	54	0.12	.....	0.12	0	1	12[1]	4[1]	3[1]	s.	E. M. Smith.
Government Creek	Tooele	5,277	11	69.3	− 2.6	94	24	40	30	40	0.36	− 0.88	0.10	0	5	13	9	9	n.	Walter James.
Granger	Salt Lake	4,560	.....	69.2[d]	.....	92	9	48	31	37	0.77	.....	0.30	0	4	.....	.....	.....	.....	Geo. E. Greene.
Grantsville	Tooele	4,220	1	.....	.....	.....	.....	.....	.....	.....	0.47	.....	0.24	0	4	16	14	1	.....	J. C. Woodmansee.
Grouse Creek	Boxelder	5,148	4	.....	.....	.....	.....	.....	.....	.....	1.50	.....	0.49	0	6	13	10	8	sw.	Philip Paskett.
Heber	Wasatch	5,593	19	62.3	− 2.5	89	9	35	24	53	1.19	+ 0.15	0.42	0	8	21	5	5	s.	John Crook.
Henefer	Summit	5,301	12	62.2	− 2.0	93	26	35	31	53	2.18	+ 0.98	0.93	0	9	14	13	4	w.	William Brewer.
Hooper	Weber	4,436	1	.....	.....	.....	.....	.....	.....	.....	2.27	.....	1.03	0	3	.....	.....	.....	.....	T. M. Jones, jr.
Ibapah (near)	Tooele	7,500	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. S. Lawton.
Ibex	Millard	5,250	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John J. Watson.
Iosepa	Tooele	4,356	1	72.4	.....	100	26	44	19	44	0.36	.....	0.14	0	4	13	7	11	n.	Geo. K. Hubbell.
Joy	Juab	5,000	.....	68.2	.....	97	9	42	30	39	0.35	.....	0.35	0	1	.....	.....	.....	.....	A. M. Laird.
Junction	Piute	6,000	.....	.....	.....	.....	.....	.....	.....	.....	0.43	.....	0.18	0	3	22	8	1	s.	Joseph Jensen.
Kanosh	Millard	5,250	2	.....	.....	.....	.....	.....	.....	.....	0.36	.....	0.17	0	4	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	32	67.2	− 7.0	93	9	40	31	42	0.70	+ 0.50	0.32	0	4	4	25	2	sw.	F. W. Klock.
Lemay	do	4,221	1	76.5	.....	90	9†	53	1	34	1.45	.....	1.10	0	3	22	6	3	.....	Agent S. P. Co.
Levan	Juab	5,010	22	69.2	− 0.7	94	9	42	19	40	0.26	− 0.69	0.09	0	6	23	5	3	sw.	William Brown.
Logan	Cache	4,507	21	66.5	− 4.2	89	24	46	30	37	1.31	+ 0.54	0.70	0	6	.....	.....	.....	.....	Utah Exp. Station.
Low	Tooele	4,602	.....	75.9	.....	103	25	48	31	44	0.55	.....	0.20	0	4	8	19	4	n.	Agt. W. P. Ry. Co.
Lucin	Boxelder	4,504	5	71.6	.....	96	25	40	21	45	0.55	.....	0.50	0	3	19	0	12	.....	C. C. Herrigton.
Lund	Iron	5,086	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Job. F. Hall.
Manti	Sanpete	5,575	17	66.5	− 1.8	89	9	44	20†	42	0.44	− 0.25	0.31	0	3	13	5	13	.....	J. M. Anderson.
Maple Creek	Utah	4,850	.....	.....	.....	.....	.....	.....	.....	.....	0.68	.....	0.23	0	10	21	8	2	.....	Lewis W. Gillilan.
Marion	Summit	6,400	7	.....	.....	.....	.....	.....	.....	.....	2.53	.....	0.75	0	10	6	4	21	s.	Jas. Woolstenhulme.
Marysvale	Piute	6,076	12	64.8	− 0.1	91	9	29	19†	47	0.39	− 1.28	0.09	0	6	7	14	10	s.	John W. Henry.
Meadowville	Rich	6,200	11	60.8	− 2.8	87	26	36	19†	44	1.80	+ 0.78	0.90	0	6	21	3	7	w.	J. S. Moffat.
Midlake	Boxelder	4,235	1	73.5	.....	83	10†	58	18	17	0.30	.....	0.30	0	1	20	7	4	.....	Agent S. P. Co.
Midvale	Salt Lake	4,365	.....	71.0	.....	98	9†	45	7†	41	0.60	.....	0.30	0	5	22	5	4	s.	M. J. Joy.
Milford	Beaver	4,962	4	74.2	.....	98	15	44	29†	36	0.00	.....	0	0	0	28	0	3	s.	Agent Salt Lake Route.
Mills	Juab	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.21	0	4	.....	.....	.....	.....	Geo. McCune.
Millville	Cache	4,848	17	.....	.....	.....	.....	.....	.....	.....	1.37	.....	0.61	0	7	13	18	0	n.	Fred Yeates.
Minersville	Beaver	5,070	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Roberts, sr.
Modena	Iron	5,479	11	66.9	− 1.7	92	23	44	19	45	0.13	− 1.70	0.09	0	3	23	7	1	sw.	U. S. Weather Bureau.
Morgan	Morgan	5,068	7	65.1	.....	95	26	40	31	49	2.23	.....	0.97	0	6	.....	.....	.....	.....	E. O. Kingston.
Moroni	Sanpete	5,519	4	68.0	.....	88	13†	48	19†	34	0.47	.....	0.12	0	5	16	6	9	sw.	B. F. Eliason.
Mosida	Utah	4,510	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. P. Curtis.
Mount Nebo	do	4,650	10	72.0	.....	98	24	45	19	46	0.28	.....	0.09	0	5	22	8	1	s.	D. C. Walkey.
Nephi (near)	Juab	5,119	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. Boswell.
Newcastle	Iron	5,150	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. W. Jones.
Oak City	Millard	4,900	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Nielson.
Ogden	Weber	4,310	41	68.6	− 8.1	97	7	42	18	48	1.23	+ 0.67	0.72	0	3	14	10	7	w.	A. Van De Graff.
Panguitch	Garfield	6,560	.....	59.8	.....	88	26	32	19	51	0.72	.....	0.43	0	4	15[d]	6[d]	6[d]	.....	John N. Henrie.
Park City	Summit	7,800	7	59.0	.....	88	23	31	8†	55	2.30	.....	1.09	0	6	9	10	12	.....	Gertrude Evans.
Park Valley	Boxelder	5,200	1	.....	.....	.....	.....	.....	.....	.....	1.64	.....	0.76	0	8	10	16	5	se.	A. O. Evans.
Parowan	Iron	5,970	21	67.4	− 1.9	90	23	44	15	38	0.74	− 0.74	0.29	0	6	20	2	9	.....	Alex. Matheson.
Payson	Utah	4,637	8	.....	.....	.....	.....	.....	.....	.....	0.33	.....	0.12	.....	6	14	14	3	ne.	D. L. Coombs.
Pelican Point	do	4,600	1	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.20	.....	4	21	10	0	.....	B. M. Mendenhall.
Pine Cliff Ranch	Summit	8,250	1	58.4	.....	83	26	35	20	38	2.55	.....	0.66	0	7	.....	.....	.....	.....	L. E. Leavitt.
Pinto	Washington	5,907	14	61.2[b]	− 3.7	88	23	37	22	50	0.92	− 1.12	0.42	0	3	18[a]	9[a]	3[a]	s.	J. H. Harrison.
Plentiful	Tooele	4,220	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. L. Drumm.
Promontory	Boxelder	4,913	33	.....	.....	.....	.....	.....	.....	.....	0.17	− 0.22	0.10	0	3	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	23	68.5	− 2.6	98	9	40	8†	53	0.66	− 0.02	0.35	0	6	13	16	2	n.	James A. Oliver.
Randolph	Rich	6,442	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Rex.
Revier	Salt Lake	5,066	1	.....	.....	.....	.....	.....	.....	.....	1.28	.....	0.30	0	7	.....	.....	.....	.....	E. L. Terry.
Richfield	Sevier	5,350	18	67.5	− 0.2	92	9	42	19	44	0.38	− 0.36	0.20	0	2	15	12	4	.....	Joseph J. Jensen.
Richmond	Cache	4,529	.....	.....	.....	.....	.....	.....	.....	.....	3.03	.....	0.81	0	10	7	17	6	.....	J. R. Thompson.
Saltair	Salt Lake	4,220	8	71.7	.....	91	9	53	19	24	2.00	.....	0.90	0	7	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	do	4,360	38	72.5	− 3.0	94	9	49	18	31	0.70	− 0.08	0.28	0	8	19	9	3	sw.	U. S. Weather Bureau.
Scipio	Millard	5,260	17	67.6	− 1.0	92	11†	35	19	48	0.43	− 0.63	0.21	0	4	15	9	7	sw.	Thos. Memmott.
Showell	Boxelder	4,650	.....	64.7	.....	92	13†	32	31	52	1.79	.....	1.15	0	6	17	14	0	.....	Richard Ilgner.
Silver City	Juab	6,127	2	.....	.....	.....	.....	.....	.....	.....	0.52	.....	0.22	0	3	13	8	10	.....	J. L. Stark.
Spanish Fork	Utah	4,585	2	71.4	.....	95	23	49	19†	41	0.57	.....	0.23	0	5	15	15	1	.....	U. S. Rec. Service.
Strawberry Tunnel, west.	do	7,650	6	60.8	.....	89	5	38	31	42	1.57	.....	0.35	0	8	16	11	4	.....	Do.
Thistle	do	5,075	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Thorgierson.
Tooele	Tooele	4,900	16	68.6	− 4.0	92	9†	46	19†	35	1.17	+ 0.14	0.43	0	9	3	13	15	ne.	E. A. Bonelli.
Utah Lake Pumping Station.	Utah	4,500	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Knight.

TABLE 1.—*Climatological data for August, 1912. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Utah—Continued.																				
Vernon	Tooele	5,500	....	.....	.....	.....	.....	.....	.....	.....	1.31	.....	1.08	0	6	18	11	2	sw.	Glynn Bennion.
Wendover	....do	4,237	1	74.2	.....	99	9	45	31	34	0.41	.....	0.26	0	3	11	18	2	.....	J. S. Cooper.
Whisky Creek	Millard	4,850	1	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.10	0	1	.....	.....	.....	.....	George Stevens.
Winder	Garfield	8,000	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Mangum.
Woodruff	Rich	6,500	10	53.7[a]	.....	85	9	24	19	55[a]	3.23	.....	1.42	0	8	16[a]	12[a]	2[a]	sw.	A. L. Eastman.
Oregon.																				
Burns	Harney	4,157	21	64.1	− 0.7	100	23	25	29	58	0.44	+ 0.30	0.44	0	1	25	5	1	.....	J. C. Welcome, jr.
Cliff	Lake	4,300	5	57.4	.....	92	23	23	30	55	0.98	.....	0.30	0	8	7	19	5	nw.	John C. Green.
Paisley	....do	4,500	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. C. Woodward.
Silver Lake	....do	4,700	15	60.6	− 0.3	91	24	31	31	48	1.45	+ 1.13	0.49	0	6	13	16	2	w.	G. W. Marvin.
California.																				
Tahoe	Placer	6,240	2	56.6	.....	81	6†	28	30	44	0.00	.....	0.00	0	0	30	1	0	w.	R. M. Watson.
Truckee	Nevada	5,819	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Nevada.																				
Austin	Lander	6,594	23	66.0	− 2.3	91	7	38	18	43	0.65	+ 0.10	0.40	0	2	26	1	4	s.	F. O. Booe.
Battle Mountain	....do	4,843	41	69.9	− 4.2	104	25	34	29†	62	0.20	+ 0.06	0.20	0	1	22	7	2	w.	Southern Pacific Co.
Beowawe	Eureka	4,905	41	.....	.....	100	15	.....	.....	.....	0.76	+ 0.61	0.50	0	2	28	0	3	w.	Do.
Carlin	Elko	5,232	41	66.2	− 2.9	100	8†	28	30	63	0.27	+ 0.09	0.27	0	1	29	0	2	.....	Do.
Carson Dam	Churchill	4,032	5	69.2	.....	93	7†	40	30	40	0.18	.....	0.18	0	1	23	7	1	w.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	4	66.2	.....	93	24	40	19†	42	0.61	.....	0.18	0	10	15	13	3	w.	J. H. Leishman.
Clover Valley	Elko	6,000	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. F. Wiseman.
Columbia	Esmeralda	5,750	5	70.2	.....	96	7	44	18†	41	0.00	.....	0.00	0	0	30	1	0	se.	A. Booth.
Dry Farm	Elko	5,600	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walfrid Sohlman.
Elko	....do	5,432	41	63.2	− 4.9	94	8	28	31	55	0.59	+ 0.29	0.27	0	7	18	7	6	w.	E. J. Clark.
Ely	White Pine	6,421	21	68.4	+ 3.8	90	25	36	30	42	0.15	− 1.11	0.08	0	3	18	8	5	s.	R. E. Middagh.
Eureka	Eureka	6,500	9	65.9	.....	92	23	35	18†	41	0.53	.....	0.47	0	3	15	8	8	s.	Clay Simms.
Fallon	Churchill	3,965	7	68.2	.....	97	8	39	18†	47	0.18	.....	0.18	0	1	27	2	2	ne.	U. S. Experiment Station.
Fernley	Lyon	4,200	39	70.6	− 4.6	98	6	38	30	47	0.70	+ 0.53	0.65	0	2	24	7	0	w.	Mrs. G. A. Steele.
Gardnerville	Douglas	4,830	12	62.0	− 6.2	85	23†	34	30	48	T.	− 0.20	T.	0	0	21	7	3	w.	W. M. Maule.
Gerlach	Washoe	.....	0	70.8	.....	95	7	32	17	41	0.30	.....	0.30	0	1	.....	.....	.....	se.	Western Pacific Co.
Geyser	Lincoln	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. J. F. Wambolt.
Golconda	Humboldt	4,697	33	68.2	− 4.4	95	8	36	30	44	0.40	+ 0.31	0.35	0	2	13	7	11	w.	Southern Pacific Co.
Halleck	Elko	5,631	19	63.9	− 2.8	95	8†	31	18	58	0.19	0.00	0.13	0	2	25	2	4	.....	Do.
Hawthorne	Mineral	4,569	18	73.0	− 1.0	97	8	48	31	41	0.00	− 0.24	0.00	0	0	25	4	2	w.	G. B. Stannard.
Jean	Clark	2,074	4	76.8	.....	110	8	46	31	55	0.20	.....	0.20	0	1	30	1	0	nw.	Salt Lake Route.
Lahontan	Churchill	.....	0	74.1	.....	98	7	46	29	43	0.33	.....	0.22	0	2	27	4	0	w.	U. S. Reclamation Service.
Lewers' Ranch	Washoe	5,500	24	63.0	− 5.1	88	9	35	30	42	0.20	− 0.14	0.20	0	1	24	5	2	.....	Ross Lewers.
Lovelocks	Humboldt	3,977	18	66.8	− 8.8	96	23	37	18	53	0.17	+ 0.14	0.11	0	3	21	7	3	sw.	A. P. Tilford.
McDermitt	....do	4,700	23	64.8	− 7.5	94	23	30	30	42	0.15	0.00	0.13	0	2	18	9	4	w.	Scott Sterling.
Millett	Nye	.....	4	64.2	.....	93	8	30	31	54	0.10	.....	0.10	0	1	22	6	3	w.	Fred J. Jones.
Mina	Mineral	4,600	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Oasis Ranch	Esmeralda	5,106	0	69.0	.....	96	9†	41	31	48	0.00	.....	0.00	0	0	30	1	0	s.	A. S. Patterson..
Potts	Nye	6,990	19	60.0	− 7.8	89	12	30	19	50	0.20	− 0.46	0.15	0	2	9	11	11	s.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	10	65.2[c]	− 2.3	98[c]	22	23[c]	30	58	0.11	− 0.30	0.06	0	2	.....	.....	.....	s.	F. M. Payne.
Rebel Creek	....do	.....	0	65.8	.....	97	23	28	30	54	0.38	.....	0.38	0	1	20	9	2	sw.	E. J. Hyatt.
Reno	Washoe	4,532	41	66.3	− 0.7	93	23	37	30	44	0.96	+ 0.71	0.96	0	2	25	5	1	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Tecoma	Elko	4,812	34	62.7	−10.1	100	24†	24	30	61	0.73	+ 0.50	0.35	0	4	13	10	8	se.	Southern Pacific Co.
Tonopah	Nye	6,090	7	69.6	.....	89	7	46	18	31	0.00	.....	0.00	0	0	26	5	0	se.	U. S. Weather Bureau.
Wells	Elko	5,631	40	65.6	− 3.0	94	7†	40	3†	50	0.90	+ 0.70	0.40	0	3	28	0	3	.....	Southern Pacific Co.
Winnemucca	Humboldt	4.432	33	66.7	− 4.1	96	23	36	31	48	0.13	− 0.04	0.02	0	2	22	5	4	sw.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb: means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 10, Great Basin.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																															
Border	Bear	T.		T.											T.	.65	T.	.20									.04	.45					1.34
Cokeville	do	.18	T.	.46			T.									.55		.08	.11								.10	.21	.09				1.78
Evanston	do	.35		.18										.03		.35		T.	.42								T.	.18					1.51
Idaho.																															
Geneva	Bear	.14	.29															.22									.58						1.23
Grace	do	.30		.03	.03											.90	.05		.60									.02					1.93
Paris	do	.10	.15	.05												.62		.50										.13					1.55
Weston	do	.23		.10												.98		.07	.14				.20					.53					2.25
Utah.																															
Alpine	G. S. Lake	.12														.32		.21									.34	.14					1.13
Beaver	Sevier Lake		.20	.03											.07										T.		.22		T.	.18			0.70
Black Rock	do														T.																		T.
Burrville	do														.05												.10						0.15
Castle Rock	G. S. Lake	.36		.70											.01	.43		.05	.35									.35		.01	.02		2.28
Cedar City	Desert		.18												.16												.08			.01	.04		0.47
Center	do	.01	T.	.02										T.	T.	.19			T.			T.					T.	T.		T.			0.22
Clarkston	G. S. Lake	.72													.95				.35									.43					2.45
Corinne	do	1.00														.57											.25						1.82
Deseret	Sevier Lake														.05										.08		.03			T.			0.16
Erekson	Desert																																
Enterprise	G. S. Lake																													.87			0.87
Fairfield	do																																
Farmington	do	.60	.06	.20													T.	.25								T.	.35	.06					1.52
Fillmore	Sevier Lake		.11												.02												.03	.04			.07		0.27
Frisco	Desert																																
Garrison	do													T.	.12												T.						0.12
Government Creek	do	.08		.10												.06		T.	.04								.08						0.36
Granger	do	.22														.20			.30									.05			T.		0.77
Grantsville	G. S. Lake	.02	.05													.16			.24														0.47
Grouse Creek	Desert	.47	T.	.13		.02					T.	.22						.49										.17					1.50
Heber	G. S. Lake	.05													.15	.15		.10	.12								*	.42		.20			1.19
Henefer	do	.20	T.	.13										.22	T.	.93		1.07	.30								.03	.25		.05			2.18
Hooper	do	1.03								.50			.74																				2.27
Ibapah (near)	Desert																																
Ibex	do																																
International	G. S. Lake																																
Iosepa	Desert	.14	.05												T.				.07								T.	.10					0.36
Joy	do	.35																															0.35
Junction	Sevier Lake		.12												.13										T.			T.		.18			0.43
Kanosh	do			.10										.05													.17		.04				0.36
Kelton	G. S. Lake	.32	.15															.13									.10	T.					0.70
Lemay	Desert	1.10	.05															.30															1.45
Levan	Sevier Lake		T.												T.	.02		.01									.02	.04		.09	.08		0.26
Logan	G. S. Lake	.08	.15													.70	.04	.29									.05						1.31
Low	do	.20	.10													.10												.15					0.55
Lucin	Desert																	.05									.25	.25					0.55
Lund	do																																
Manti	Sevier Lake	T.	.31							T.					T.			T.							T.		T.	.07		.06			0.44
Maple Creek	G. S. Lake	.23	.02	.02											.03	.19		.03								.02	.01		.03	.10			0.68
Marion	do	.29	.18	.22										.10	.20	.40		.04	.30									.75		.05			2.53
Marysvale	Sevier Lake	T.	.09	.04									T.	.09	.08	T.		T.				T.				T.	.03	T.		T.	.06		0.39
Meadowville	G. S. Lake	.20												T.		.90	.15		.05									.40	.10				1.80
Midlake	do		.30													T.											T.						0.30
Midvale	do		.02												.30			.21									.04	.03					0.60
Milford	Sevier Lake																																0.00
Millville	G. S. Lake	.23	.20	T.												.61	.03		.18							.08							1.37
Mills	Sevier Lake	T.	.10											T.	T.	.04		T.							T.		.21		T.	T.	.20		0.55
Minersville	do																																
Modena	Desert		.02												.09										T.		T.				.02		0.13
Morgan	G. S. Lake	.35	.20	.02												.44			.25									.97					2.23
Moroni	Sevier Lake	T.	.10	.07						T.					T.		.10	T.									T.	.12	T.	.08			0.47
Mosida	G. S. Lake																																
Mount Nebo	do	.03	T.												.05	.09		T.									.09			.02			0.28
Nephi (near)	do																																
Newcastle	Desert																																
Oak City	Sevier Lake																																
Ogden	G. S. Lake	.39	.12																.72														1.23
Panguitch	Desert		.14												T.										.43					.10	.05		0.72
Park City	G. S. Lake	.03	.01							.07				.05													1.05	1.09					2.30
Park Valley	Desert	.76	.04	.03		T.									.10	.03		.43									.10	.15					1.64
Parowan	do	T.	.09												.11			.02										.11		.12	.29		0.74
Payson	G. S. Lake	.12	.03	.05												.06											T.	.03		.04			0.33
Pelican Point	do																.20		.07								.11			.08			0.46
Pine Cliff Ranch	do	.36	.21													.66			.51									.64	.08		.09		2.55
Pinto	Desert			.15											.42												T.				.35		0.92
Plentiful	G. S. Lake																																
Promontory	do	.10													.02													.05					0.17
Provo	do	.25	.05												T.	.35		.10	.02								T.	.12					0.66
Randolph	do																																
Revier	do	.19	.06												.23			.08	.25			T.					.30	.17					1.28
Richfield	Sevier Lake		.20																								.18						0.38
Richmond	G. S. Lake	.81	.40											.10	.69	.02	.05	.50	.02								.29	.15					3.03
Saltair	do	.90	.30	.01												.22			.44								.09	.04					2.00
Salt Lake City	do	.01	.04												.03	.19		T.	.28								.02	.08		.07			0.70
Scipio	Desert	.02	T.															T.									.09	.11		.21			0.43
Showell	do	1.15			.10	.08												.18	.13									.15					1.79
Silver City	do	.10													.20												.22						0.52
Spanish Fork	G. S. Lake	.23	T.	.04											.08	.15		T.	T.								T.	T.		.07			0.57
Strawberry Tunnel W.	do	.16	.21	.17										T.	T.	.35	T.	.28	T.								.09	.10		.21			1.57
Thistle	do																																
Tooele	do	.23	.11	.05	.01											.21		T.	.43	.01							.09	.03					1.17
Utah Lake Pumping Station.	do																																
Vernon	Desert	T.	.07												T.	T.	.03	.02									.01	.10	1.08				1.31
Wendover	do	.10	.26																								.05						0.41
Whisky Creek	do							.10																									0.10
Winder	Sevier Lake																																
Woodruff	G. S. Lake	.61	1.42	.10												.50		.10	.30								.15		.05				3.23

TABLE 2.—*Daily precipitation for August, 1912. District No. 10*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California.																																	
Bijou	Truckee																																
Boca	do																																
Bridgeport	East Walker												.02																				0.02
Deer Park	Truckee																																
Glen Alpine	do																																
Hobart Mills	do																																0.00
Lundy	East Walker																																0.00
Markleeville	East Carson	T.																												.06			0.06
Shields Ranch	East Walker	.03																															0.03
Silver Creek	East Carson	.04																												.04	.08		0.16
Tahoe	Truckee																																0.00
Tallac	do	.12																				T.											0.12
Truckee	do																																
Woodfords	West Carson																																
Oregon.																																	
Adel	SE. drainage.																																
Ana River	do		.12	.06										T.	.03			.20											.27			T.	0.68
Bear Valley	do	.10	.70	.05											T.	.02	.04	.13											.15		.06		1.25
Burns	do	.44																											T.				0 44
Burns Mill	do			.35	.65									.15					.17												.15	.14	1.61
Christmas Lake	do		.09												.02	.09		.20										T.	.32		T.		0.72
Cliff	do	.20	.05	.06										T.	.04	.15		.15											.30		.03		0.98
Diamond	do	.05	.24	.27																										.05	T.		0.61
Embody	do	.15	.05											.50	.05	.20		.05													.30	.10	1.40
Fort Rock	do	.07	T.											.07	.15			.15			T.	T.						T.	.15		.05		0.64
Paisley	do																																
Seneca	do	.20		.90												T.		T.											.12		T.	.05	1.27
Silver Lake	do		.37													.29		.20			.68	*							.49		.02		1.45
Valley Falls	do		.09	.44										.01				.16										.04		.05			0.79
Nevada.																																	
Arthur	Humboldt	.30	.20												.20			.20										.20					1.10
Austin	Reese													.25													.40						0.65
Battle Mountain	Humboldt													T.													.20						0.20
Beowawe	do	.59																									.17						0.76
Bishop	do	1.10	.37											.02	T.			T.									.07						1.56
Carlin	do																										.27						0.27
Carson Dam	Carson	T.	.18																														0.18
Cherry Creek	Humboldt	.01	.05	.18										T.	.05			.01	.04		.02				.01		.11	.13					0.61
Clover Valley	do																																
Columbia	Desert																																0.00
Dry Farm	Humboldt																																
Elko	do	.27	.03	T.										T.	.07		*	.06									.02	.14					0.59
Ely	do		*	.07										.08													T.	T.					0.15
Eureka	do	.03	.03											T.												T.	.47						0.53
Fallon	Carson		.18											T.	T.																		0.18
Fernley	Truckee	.65	.05																														0.70
Gardnerville	Carson																				T.												T.
Gerlach	Desert	.30																															0.30
Geyser	Humboldt																																
Glenbrook	Truckee																																
Golconda	Humboldt	.05	.35																														0.40
Halleck	do	.13	.06																														0.19
Hawthorne	Desert																																0.00
Jean	do																										.20						0.20
Lahontan	Carson	.11	.22																														0.33
Lewers Ranch	Truckee		.20																														0.20
Lovelocks	Humboldt	.03	.11																.03														0.17
McDermit	do	.13																.02															0.15
Massacre Lakes	Desert	T.	.07	T.														T.			T.	T.							T.				0.07
Mill City	Humboldt																										T.						T.
Millett	Reese														T.												.10						0.10
Mina	Desert																																
North Fork	Humboldt	T.	.02											.15	T.			T.									.10						0.27
Oasis Ranch	Desert																																0.00
Potts	Reese																										.15	.05					0.20
Quinn River Ranch	Humboldt	.06	.05																														0.11
Rebel Creek	do	.38	T.	T.														T.															0.38
Reno	Truckee	.03	.93																		T.												0.96
Skelton	Humboldt	.13	.04															.21									.42						0.80
Smith	West Walker	.05	.05										.10	.05																			0.25
Soda Lake	Carson																																
Spooners Ranch	Truckee	T.	T.																														T.
Sweetwater	East Walker																																
Tecoma	Humboldt	.11												T.			.12	.35									.15						0.73
Tonopah	Desert																																0.00
Wells	Humboldt	.20												.40				.30															0.90
Willow Point	Little Humboldt.																																0.00
Winnemucca	Humboldt	.11	T.															T.									.02						0.13

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.

‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 10, Great Basin.*

Date.	Wyoming.				Weston, Idaho.		Utah.																			
	Border.		Evanston.				Corinne.		Government Creek.		Joy.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	64	51	68	51	68	58	73	58	81	54	87	52	81	49	68	53	78	48	85	49	80	50	84	57	78	59
2	78	41	76	43	81	47	73	55	84	60	86	51	86	46	77	45	81	51	87	50	84	55	91	50	83	59
3	85	46	73	47	80	53	84	53	85	52	89	50	85	44	77	48	81	47	88	54	83	52	91	49	83	60
4	74	42	75	40	81	47	88	66	82	49	87	50	83	44	78	43	84	45	90	55	89	54	88	44	79	60
5	69	36	77	37	74	42	86	53	87	51	90	55	84	41	79	40	87	44	94	52	86	51	91	45	88	59
6	83	43	76	42	85	45	88	54	85	54	89	54	89	42	78	45	89	50	95	53	89	49	90	48	84	61
7	70	43	70	43	76	53	84	57	82	51	88	52	88	44	69	49	91	50	97	55	87	52	84	45	80	63
8	80	38	78	38	84	46	89	51	91	51	92	54	88	42	75	40	91	48	93	54	89	52	93	40	91	60
9	88	40	83	41	92	43	99	54	93	59	97	65	91	45	86	43	88	52	89	50	88	52	98	50	94	65
10	81	39	79	42	87	48	90	58	90	60	94	60	86	45	81	47	84	49	91	51	86	55	96	46	90	71
11	82	39	78	38	87	45	87	53	89	55	90	56	88	46	79	44	85	51	88	51	88	54	93	44	86	62
12	82	39	80	41	89	45	89	53	88	55	93	60	87	47	82	45	87	52	90	52	88	54	94	47	88	63
13	85	38	81	44	89	49	91	58	90	64	84	56	90	51	81	46	87	54	87	50	83	53	97	50	91	66
14	84	39	76	42	85	55	89	57	89	63	86	61	76	57	77	50	76	57	86	48	72	56	89	56	82	66
15	70	50	71	50	73	54	80	57	83	50	70	43	83	41	71	49	82	45	90	47	80	44	82	55	81	59
16	74	46	70	45	67	50	74	54	74	54	76	55	83	41	67	48	81	46	91	47	81	47	83	46	74	64
17	80	45	67	45	73	52	75	54	79	48	80	48	79	50	77	45	78	45	91	46	78	52	80	53	78	58
18	68	34	62	40	67	46	72	40	73	43	84	45	78	52	61	45	78	45	90	42	77	50	76	49	69	49
19	70	34	68	34	75	40	77	45	79	43	88	55	81	39	70	36	80	44	85	43	79	48	71	40	75	53
20	80	38	78	38	79	41	80	52	84	47	90	51	84	39	73	38	82	45	83	46	84	48	89	43	81	57
21	81	38	80	39	86	45	83	57	86	51	86	54	84	40	85	41	85	47	88	48	85	51	91	44	84	52
22	82	38	81	38	84	43	86	53	88	54	89	53	87	42	79	43	90	45	90	47	88	54	93	44	88	62
23	86	37	83	39	85	45	86	56	90	53	86	54	85	44	82	40	92	49	86	48	90	52	96	43	90	63
24	84	39	85	38	90	47	90	58	94	58	82	49	86	44	84	45	89	58	87	49	85	53	95	44	93	67
25	86	40	84	40	91	53	91	58	92	62	80	44	88	43	85	53	89	54	85	46	88	52	95	46	92	69
26	90	42	87	44	90	47	93	52	90	65	81	46	88	48	87	43	84	59	84	49	83	57	96	50	94	67
27	86	41	74	52	78	57	90	55	86	56	80	45	80	57	77	54	81	60	86	49	79	57	87	60	86	65
28	82	40	75	46	81	49	92	50	85	57	79	43	84	50	77	47	78	58	83	47	82	55	90	56	85	70
29	82	35	72	46	75	42	85	55	82	57	80	45	79	53	72	52	77	58	84	48	74	56	85	61	75	61
30	80	36	70	40	73	38	75	45	75	40	75	42	65	56	71	38	72	50	84	48	71	50	81	45	72	54
31	75	31	72	33	78	38	82	43	84	50	79	43	81	41	73	36	76	50	85	47	71	45	87	42	82	55
Mns.	79.4	39.9	75.8	41.8	80.7	47.2	84.5	53.4	85.2	53.4	85.1	51.2	83.8	45.9	76.7	44.9	83.3	50.2	88.1	49.1	82.6	52.1	88.9	48.1	83.7	61.3

Date.	Burns, Oreg.		Nevada.																							
			Cherry Creek.		Elko.		Eureka.		Fallon.		Hawthorne.		Jean.		Lovelocks.		Millet.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	92	36	78	53	79	56	75	48	85	55	89	65	96	49	82	56	80	49	80	57	81	57	80	42	76	54	77	58
2	95	40	79	51	82	45	76	49	80	52	83	56	99	52	82	47	81	45	86	49	78	51	78	36	77	58	82	51
3	90	36	78	46	78	43	80	42	83	44	83	54	100	53	82	42	81	45	83	41	78	45	85	41	78	52	78	44
4	89	35	80	46	83	42	82	42	87	46	89	54	99	49	89	47	84	44	88	39	87	49	83	42	83	56	86	49
5	89	40	85	47	88	44	86	48	94	55	91	57	102	52	91	46	88	41	90	44	87	49	90	31	87	65	89	50
6	92	40	86	51	87	44	87	49	93	51	94	58	103	49	94	49	90	43	93	58	91	53	92	35	88	64	91	53
7	92	41	84	50	88	43	87	48	95	56	95	59	105	50	94	55	91	44	96	40	92	54	90	35	89	69	92	53
8	89	40	91	53	94	44	90	60	97	53	97	60	110	60	95	49	93	45	91	35	86	53	95	33	89	67	93	50
9	90	42	89	60	90	43	88	61	90	50	92	57	103	58	87	48	90	47	85	51	82	56	97	35	86	65	87	52
0	88	38	87	51	85	40	87	47	90	47	89	59	99	60	89	48	89	44	88	44	85	48	95	37	82	56	86	54
11	92	44	86	50	88	42	88	59	93	51	94	57	98	58	93	49	89	45	.....	.....	90	54	95	34	83	61	91	46
12	90	46	87	54	91	41	88	51	94	54	94	61	99	58	95	48	91	45	93	43	90	55	95	35	85	62	93	51
13	93	49	87	59	90	54	88	53	92	58	90	63	96	57	93	61	85	46	92	58	88	55	97	42	84	63	92	60
14	90	45	76	51	84	45	83	49	90	54	90	59	95	53	90	55	80	49	89	56	82	52	90	40	82	58	88	59
15	85	40	81	47	83	41	81	48	86	50	90	56	98	56	86	45	85	44	82	50	77	50	87	45	79	56	83	51
16	80	30	74	50	81	43	77	39	76	48	77	56	97	56	77	40	86	47	71	41	77	45	86	30	74	47	74	49
17	82	40	69	50	70	50	74	44	79	44	83	51	95	55	78	45	77	47	69	37	72	45	85	31	75	55	74	43
18	83	40	73	41	74	40	76	35	78	39	84	52	94	52	78	37	80	38	76	36	79	39	76	31	77	46	75	37
19	80	35	80	40	80	32	82	42	85	42	87	58	99	54	86	45	83	37	82	36	84	45	70	32	80	57	81	43
20	84	35	83	48	86	41	82	51	90	46	91	60	96	51	89	47	85	40	93	39	86	50	90	35	80	60	89	47
21	94	39	84	47	88	43	83	50	90	49	92	56	101	59	90	48	85	39	93	54	87	49	90	36	81	61	91	54
22	96	40	86	48	91	41	87	52	92	50	93	52	102	60	93	45	88	41	98	40	91	52	98	37	86	63	94	47
23	100	42	91	49	92	37	92	54	95	50	95	56	104	61	96	43	90	42	97	43	93	52	98	37	86	67	96	48
24	96	40	93	52	93	39	90	54	95	53	92	62	103	60	94	45	90	43	93	42	90	55	100	40	85	62	94	47
25	96	42	91	60	91	41	90	52	94	47	95	58	101	60	94	43	90	44	91	40	92	48	100	40	85	64	92	48
26	95	40	86	59	90	41	84	59	93	51	96	60	98	58	93	44	86	48	93	39	82	54	98	42	79	63	94	47
27	93	39	81	52	81	51	83	52	85	42	91	58	98	55	84	39	83	47	87	44	77	43	90	45	76	54	82	44
28	85	35	80	56	82	35	80	53	85	42	86	52	95	54	86	42	81	76	.....	.....	74	45	90	35	74	52	80	40
29	83	25	74	56	77	39	74	39	76	41	76	54	93	54	75	41	77	39	.....	.....	71	43	88	35	72	51	71	41
30	85	29	70	42	74	31	76	35	77	39	78	51	92	49	78	41	79	35	75	23	75	37	80	24	72	46	76	37
31	88	34	80	40	79	28	82	41	87	43	89	48	92	46	79	38	84	30	82	33	77	45	80	27	78	53	80	36
Mns.	89.5	38.7	82.2	50.3	84.5	41.9	83.2	48.6	87.9	48.5	89.2	56.7	98.8	54.8	87.5	46.1	85.2	43.2	•87.0	•43.3	83.3	49.3	89.3	36.1	80.9	58.3	85.5	47.9

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§ § Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 11, CALIFORNIA.

Prof. ALEXANDER G. McADIE, District Editor.

GENERAL SUMMARY.

August, 1912, was cooler than the average August. With the exception of August, 1911, the mean temperature for the State as a whole was lower than that of any similar month since records have been kept. The month is normally one of high afternoon temperature, much sunshine, except along the coast, and little rain. This month there was a little more rain than during August, 1911, or August, 1910, and there was less sunshine, except at San Francisco, Sacramento, and San Jose. There were no excessively high temperatures, that is, temperatures exceeding 120°. In this respect the month closely resembled last August.

The month was a pleasant one, and notwithstanding unusually low water in the rivers, mountain streams, and watercourses lessened their attractiveness, visitors and tourists were not subjected to inconveniences due to heat on the one hand or thunderstorms and cloudbursts on the other. During August, 1911, the waterfalls were running full; but this year during the same period the volume of moving water was small and the streams lower than has been known for many years. There was very little snow in the mountains, even in those places where the snow usually remains throughout the year.

The weather was favorable for crops, although the season was a late one and fruits did not ripen as early or as abundantly as in previous seasons.

There were no unusual features connected with pressure distribution or storm movement. At the beginning of the month a slow-moving depression over the Great Basin resulted in unsettled weather and occasional thunderstorms in the Sierra. A moderate warm spell occurred on August 6, when afternoon temperatures reached 100° at Sacramento, 102° at Red Bluff and 104° at Fresno. This was followed by a succession of pleasant days without extreme conditions. On August 24, instead of the usual inversion of temperature so characteristic of the coast section near San Francisco Bay, there occurred a marked cooling at a height of 3,000 feet. Surface temperatures were approximately 10° higher than the temperatures at the height mentioned. Usually they are 10° or more lower. The condition was followed by cloudy weather along the coast, but no rain, and the return to usual conditions occurred August 29.

The only other feature of interest was rain at San Diego August 29 and 30.

The usual summer depression over the Valley of the Colorado was less extensive and less deep than might have been expected, and with the exception of a disturbance near the close of the month, there were no Sonora storms.

TEMPERATURE.

The temperature for the State was 2.6° below the normal. The following table gives the mean temperature for California for each August during the time for which records have been kept.

The highest temperature recorded was 115° at Indio on the 7th. The highest temperature reported at any station in California last August was 114° at Mammoth. The lowest temperature was 20° at Madeline on the 20th. This was 8° lower than the lowest recorded during August, 1911. The highest mean temperature was 96.3° at Bagdad. It is interesting to notice that the mean temperature at Greenland Ranch, our new station in Death Valley, was 96°. Another high mean temperature was 93.8° at Mammoth Tank. The stations at which these high temperatures occurred are respectively in the Mojave Desert, the Death Valley section, and the Salton Desert. The highest mean temperature last August was 96.6° at Bagdad, and nearly all the stations in the Colorado Desert had mean temperatures in excess of 90°. The lowest mean temperature was 51.6° at Summit, Placer County.

Years.	Mean.	Departure.	Years.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897	73.9	+1.1	1905	73.4	+0.6
1898	74.5	+1.7	1906	73.6	+0.8
1899	70.8	−2.0	1907	71.0	−1.8
1900	71.0	−1.8	1908	73.3	+0.5
1901	75.6	+2.8	1909	72.1	−0.7
1902	71.8	−1.0	1910	72.5	−0.3
1903	72.6	−0.2	1911	70.1	−2.7
1904	73.9	+1.1	1912	70.2	−2.6

PRECIPITATION.

The average monthly precipitation for California for August with departures from the normal is as follows:

Years.	Mean.	Departure.	Years.	Mean.	Departure.
	Inch.	Inch.		Inch.	Inch.
1897	0.03	−0.05	1905	0.03	−0.05
1898	.02	− .06	1906	.13	+ .05
1899	.11	+ .03	1907	.11	+ .03
1900	.02	− .06	1908	.12	+ .04
1901	.12	+ .04	1909	.19	+ .11
1902	.06	− .02	1910	.01	− .07
1903	.02	− .06	1911	.00	− .08
1904	.17	+ .09	1912	.06	− .02

The greatest monthly precipitation was 1.05 inches at Nellie. Two hundred stations reported no rain during the month.

SUNSHINE.

The following table gives the total hours of sunshine and percentages of the possible:

Stations.	Hours.	Percentage of possible.	Stations.	Hours.	Percentage of possible.
Eureka	115	27	Sacramento	422	100
Fresno	416	99	San Diego	281	68
Los Angeles	319	77	San Francisco	335	79
Mount Tamalpais	402	95	San Jose	364	87
Red Bluff	396	93	San Luis Obispo	329	79

NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING AUGUST, 1912.

By N. R. TAYLOR, Local Forecaster.

Sacramento watershed.—The rivers of this watershed continued to fall slowly during the month and, at most points, all previous low-water records were broken.

From Red Bluff to Tehama the Sacramento River, while much below the normal stage, averaged slightly above the low-water stages that prevailed during the corresponding month in 1908–1910. South of Tehama the Sacramento was the lowest ever recorded.

At Colusa the average stage, 0.9 of a foot, was 1.2 feet below the August normal and 0.2 of a foot below the previous lowest average. The average at Knights Landing was 0.8 of a foot below the zero of the gage, 2.1 feet below the normal, and nearly 1 foot lower than the previous lowest average for any month. At Sacramento City the river averaged 4.7 feet, which is 2.9 feet below the usual August stage and 0.8 of a foot below any previous monthly average. The extreme low-water stage at Sacramento during the month was 4.1 feet, which is 1 foot lower than any previous low-water record.

The influence of the tides was felt for some distance above the mouth of the American River, and at Sacramento City it amounted to as much as 1.1 feet.

In the lower reaches of the river there was little departure from the usual August stages.

Numerous sandbars formed between the mouth of the American River and Vernon, resulting in frequent interruptions to navigation and grounding among the upriver craft.

In all streams tributary to the Sacramento, especially in the Feather, Yuba, and American Rivers, the water was the lowest ever known. At Oroville on the Feather and Marysville on the Yuba the river averaged 0.4 of a foot below all previous low-water averages.

Lower San Joaquin watershed.—In the tributaries of this watershed there was little or no departure from the stages usually maintained during the month of August, and in no case were any of the feeders of the trunk stream as low as during the corresponding month in the past three years. In the San Joaquin itself, however, especially between the mouth of the Stanislaus and that of the Calaveras, the river averaged about 3 feet below the August normal stage.

NOTES ON STREAMS AND WEATHER OF THE UPPER SAN JOAQUIN WATERSHED.

By W. E. BONNETT, Local Forecaster.

Daily gage readings at the several river stations in this district show a low but remarkably uniform stage in all of the streams. In the Merced at Merced Falls and at Firebaugh on the San Joaquin the range between lowest and highest stages was but 0.2 foot and at Piedra on Kings River 0.5 foot, showing a more uniform flow than for any other August of the six covered by the record.

Average stages in the Merced were much lower in August, 1908 and 1910, and in 1909 the average was the same as that for this month, namely, 0.3 foot. At Friant the average stage was lower only in 1910, the respective stages for 1910 and 1912 being −1.1 and −0.2 feet. In the Kings River the shortage of irrigation water has been particularly grave. Holders of second-class water rights were compelled to discontinue the use of water by the middle of July, and by August 1 the head of water was so small that it could be supplied only by turning it alternately into the larger ditches.

The shortage of irrigation water in itself would not have been so serious, but the light rainfall of the preceding wet season had not replenished the groundwater so that sections not usually irrigated are beginning to suffer. Vines in some places are withering, and in others both fruit and vine, and late cuttings of hay will be very light.

The unusually cool weather of August was a continuation of subnormal temperature conditions which began with March. This includes practically all of the growing season to date in which the temperature for each month has been more or less below normal and in which the accumulated temperature deficiency is 414° or 2.3° per day.

Aside from making the summer a pleasant one, so far as personal comfort is concerned, the cool weather may also have been of benefit agriculturally, for with the normal heat of summer this year or the abnormal heat that comes in some years, the effects of drought would have been greatly intensified.

NOTE ON FORMATION OF A CLOUD DURING FOREST FIRE.

By FORD H. CARPENTER, Local Forecaster.

On August 23, at 3.48 p. m., a brush fire in the northern foothills sent up a straight column of smoke. When the fire reached its maximum intensity a small but well-developed cumulus cloud was seen to cap the ascending column. When the smoke column disappeared the cloud lasted two or three minutes. It was an interesting instance of cumulus cloud formed by ascending currents. The sky was free from cloud all day except for this solitary cumulus, which had an existence of less than five minutes.

TABLE 1.—*Climatological data for August, 1912. District No. 11, California.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon.																				
Klamath Agency	Klamath	4,169	4								1.52		1.02	0	2	18	10	3	nw.	M. P. Ginsbach.
Klamath Falls	do	4,100	23	62.2	− 4.7	88	23	35	30	39	1.89	+ 1.64	1.34	0	4	19	8	4	nw.	Augusta J. Hayden.
Lakeview	Lake	4,825	29																	Ralph C. Koozer.
Merrill	Klamath	4,070	6	60.2		90	23	29	16†	47	1.60		1.40	0	3	23	5	3		Mrs. W. L. Hensel.
Yonna	do	4,146	5	59.1		90	7	26	15	50	0.98		0.27	0	6	6	19	6	w.	Jacob Rueck.
California.																				
Alameda	Alameda	19	2																	Chas. E. Sears.
Alturas	Modoc	4,460	8	63.4		96	23	28	30	55	0.53		0.37	0	3	21	10	0	sw.	Prof. C. B. Towle.
Angiola	Tulare	208	12	78.8	+ 1.1	99	4	59	24†	31	0.00	0.00	0.00	0	0	25	5	1	nw.	Santa Fe Co.
Antioch **	Contra Costa	46	33	75.9	+ 1.4	98	4†	52	1		0.00	− 0.02	0.00	0	0	31	0	0		Southern Pacific Co.
Aptos **	Santa Cruz	102	27	63.2	+ 1.8	80	8	50	21†		0.00	− 0.04	0.00	0	0	23	2	6	nw.	Do.
Arrowhead Springs	San Bernardino	2,000	3																	Dr. E. A. Crokat.
Auburn	Placer	1,360	41	74.2	− 1.7	100	8†	43	19	54	0.00	− 0.02	0.00	0	0	28	3	0	ne.	Southern Pacific Co.
Avalon	Los Angeles	30	2	65.3		78	7	56	4†	22	0.00		0.00	0	0	30	1	0	w.	T. S. Manning.
Azusa	do	540	10	72.0	− 1.8	100	6†	48	3†	50	0.00	− 0.08	0.00	0	0	31	0	0	sw.	A. P. Griffith.
Bagdad	San Bernardino	784	9	96.3		110	7†	70	29	26	0.00		0.00	0	0					Santa Fe Co.
Bakersfield	Kern	404	23	75.6	− 7.4	106	7	45	30†	53	0.00	− 0.01	0.00	0	0	31	0	0		Do.
Barstow	San Bernardino	2,105	9	80.6		105	7	56	29	45	0.00	− 0.15	0.00	0	0	31	0	0	w.	E. L. White.
Berkeley	Alameda	317	25	63.0	+ 2.1	82	7	49	29	30	0.00	− 0.05	0.00	0	0	12	15	4	sw.	State University.
Biggs **	Butte	98	13	79.7	+ 2.3	104	5†	62	30		0.00	− 0.02	0.00	0	0	31	0	0	s.	Southern Pacific Co.
Bishop	Inyo	4,450	17																	Paul E. Lodge.
Bishop Creek	do	8,500	2	57.6		80	7	36	18†	27	0.00		0.00	0	0					Do.
Blocksburg	Humboldt	1,700	6	63.2		91	12	37	27†	46	T.		T.	0	0	15	9	7	nw.	Victor Hope.
Blue Canon	Placer	4,695	13	60.2	− 3.7	85	20	35	6†	39	0.00	− 0.14	0.00	0	0	30	0	1		Southern Pacific Co.
Blythe	Riverside	268	3	85.0		114	8	56	19	55	T.		T.	0	0	17	5	9	s.	D. H. Carey.
Branscomb	Mendocino	2,000	12	62.1		91	11	37	29	44	0.00	− 0.04	0.00	0	0	28	2	1	n.	A. J. Hann.
Brawley	Imperial	− 105	3	86.2		110	6†	60	30	43	T.		T.	0	0					M. D. Witter.
Burney	Shasta	3,300	2	63.2		91	23	28	30	54	0.00		0.00	0	0	17	10	4	sw.	Mrs. M. D. Chambers.
Cahuilla	Riverside	3,600	1	64.2		94	5†	35	2†	56	0.02		0.01	0	2	25	5	1	sw.	Carl Stevens.
Calexico	Imperial	0	7	87.8		112	7	64	30	42	0.85		0.85	0	1	30	0	1	nw.	J. E. Peck.
Caliente **	Kern	1,290	36	83.9	+ 0.8	100	4	68	31		0.00	− 0.01	0.00	0	0	29	0	2		Southern Pacific Co.
Calistoga	Napa	363	40	65.4	− 4.9	98	6	50	1†		0.00	− 0.01	0.00	0	0	31	0	0		Do.
Campbell	Santa Clara	217	15	63.0	− 1.3	89	6†	39	30	43	0.00	− 0.04	0.00	0	0	30	1	0	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	5	73.1		102	6†	42	29	46	0.00		0.00	0	0	25	6	0	s.	Cal. Gas & Electric Co.
Cedarville	Modoc	4,675	18																	T. H. Johnstone.
Chico	Butte	189	42	76.2	− 5.3	106	6†	48	29	52	0.00	− 0.02	0.00	0	0	26	5	0	s.	C. H. Stephenson.
China Flat	Humboldt	600	3	71.0		100	20†	44	30	50	T.		T.	0	0	19	9	3	w.	O. I. Westerburg.
Chino **	San Bernardino	714	20	76.8	+ 0.4	99	10	56	12		0.00	− 0.02	0.00	0	0	31	0	0		Southern Pacific Co.
Cisco **	Placer	5,939	41																	Do.
Claremont	Los Angeles	1,200	20																	Prof. F. P. Brackett.
Cloverdale	Sonoma	340	10	67.4	− 2.7	96	6†	43	22	42	0.00	0.00	0.00	0	0	31	0	0	s.	John O. Ogle.
Coalinga	Fresno			77.6		108	6	50	28†	43	0.00		0.00	0	0	31	0	0	w.	Union Oil Co.
Colfax	Placer	2,421	41	69.0	− 7.5	95	7†	43	30	36	0.00	− 0.02	0.00	0	0	26	2	3		Southern Pacific Co.
Colusa	Colusa	60	9	73.1		99	6	49	29†	39	0.00	− 0.01	0.00	0	0	23	8	0		C. D. McComish.
Corning **	Tehama	277	26	83.4	+ 2.3	101	6	60	29		0.00	− 0.02	0.00	0	0	25	6	0	s.	Southern Pacific Co.
Cuyamaca	San Diego	4,677	13	65.8	− 0.2	87	6	43	31	34	0.64	0.00	0.40	0	3	25	4	2	w.	L. L. Macquarie.
Davisville	Yolo	51	40	72.3	− 1.8	105	7	41	29	52	0.00	− 0.01	0.00	0	0	29	2	0	sw.	S. H. Brackett.
Deer Creek	Nevada	3,700	5	61.2		89	7	34	30	43	0.00		0.00	0	0	30	1	0	w.	Cal. Gas & Electric Co.
Del Monte	Monterey	25	1	62.5		74	25†	46	30	24	0.00		0.00	0	0	27	1	3	n.	H. R. Warner.
Delta	Shasta	1,138	27	75.2	− 1.2	98	7†	53	23	45	0.37	+ 0.33	0.37	0	1	30	1	0	s.	Southern Pacific Co.
Denair	Stanislaus	126	12	71.0	− 4.5	100	7	43	2†	47	0.00	0.00	0.00	0	0	31	0	0	nw.	Santa Fe Co.
De Sabla	Butte	2,500	8	67.7		94	6	40	29	38	0.00		0.00	0	0	22	9	0	sw.	Cal. Gas & Elec. Co.
Dobbins (near)	Yuba	1,650	8	74.2		100	6†	50	29†	38	0.00		0.00	0	0	24	7	0	s.	Do.
Downieville	Sierra	3,150	1	65.8		97	7	36	30	52	0.00		0.00	0	0	25	6	0	s.	J. T. Mason.
Dudley	Kings	595		84.0		109	8	52	30	44	0.00		0.00	0	0	31	0	0	sw.	Union Oil Co.
Dudleys	Mariposa	3,000	3	62.9		93	6†	34	30	48	0.00		0.00	0	0	29	2	0	nw.	W. H. Dudley.
Dunlap (near)	Fresno	2,800																		U. S. Forest Service.
Dunnigan **	Yolo	65	35	79.2	− 0.5	103	5†	59	29		0.00	− 0.01	0.00	0	0	31	0	0	n.	Southern Pacific Co.
Dunsmuir **	Siskiyou	2,285	23	65.4	− 3.8	98	7	47	29		0.44	+ 0.36	0.44	0	1	28	2	1	n.	Do.
Durham	Butte	160	17	74.6	− 1.5	103	6†	47	29	47	0.00	− 0.05	0.00	0	0	30	1	0	s.	R. W. Durham.
El Cajon	San Diego	482	13	71.0	− 2.5	101	6	48	5	52	0.32	+ 0.21	0.25	0	2	29	0	2	sw.	H. H. Kessler.
Electra	Amador	725	8	73.4		98	6†	50	29	40	0.00		0.00	0	0	31	0	0		Cal. Gas & Elec. Co.
Elsinore	Riverside	1,234	17	73.0	− 4.4	106	6	44	31	58	0.10	− 0.11	0.05	0	2	29	1	1	w.	A. F. Schult.
Emigrant Gap	Placer	5,230	38	65.2	− 0.7	87	14	43	31	35	0.00	− 0.03	0.00	0	0	31	0	0		Southern Pacific Co.
Escondido	San Diego	657	18	71.5	− 0.7	100	6	45	5†	55	0.37	+ 0.29	0.23	0	2	10	21	0	w.	A. R. Moon.
Eureka	Humboldt	64	26	57.2	+ 1.4	67	31	48	30	18	0.08	− 0.06	0.04	0	3	6	8	17	n.	U. S. Weather Bureau.
Farmington **	San Joaquin	111	33	83.7	+ 7.5	103	7	69	31		0.00	− 0.01	0.00	0	0	31	0	0	nw.	Southern Pacific Co.
Folsom	Sacramento	252	40	74.9	− 2.8	106	7	50	29†	43	T.	− 0.03	T.	0	0	27	1	3	s.	F. O. Hutton.
Fordyce Dam	Nevada	6,500	17	59.6		82	7	40	27	44	0.00	− 0.33	0.00	0	0	19	12	0	sw.	E. E. Roening.
Fort Bidwell	Modoc	4,735	23	60.8	− 9.9	93	23	27	18	50	0.30	+ 0.11	0.20	0	2	12	6	13		E. O. Franklin.
Fouts Springs	Colusa	1,650	8																	A. J. Burgi.
Fresno	Fresno	293	25	77.7	− 3.5	106	7	54	30	39	0.00	0.00	0.00	0	0	31	0	0	w.	U. S. Weather Bureau.
Galt **	Sacramento	49	34																	Southern Pacific Co.
Georgetown	El Dorado	2,650	39																	H. D. Jerrett.
Gilroy **	Santa Clara	193	38	69.7	+ 1.8	110	6	55	20†		0.00	+ 0.03	0.00	0	0	29	0	2	ne.	Southern Pacific Co.
Gilta	Siskiyou	3,300	2	65.8		93	12	38	16†	40	0.11		0.11	0	1	24	1	6	s.	A. Dannenbrink.
Glennville	Kern	3,300	2	61.6		79	6	43	30	24	0.00		0.00	0	0	28	3	0	w.	C. H. Likely.
Gold Run	Placer	3,222	13	71.2	− 2.4	95	8	47	30	33	0.00	− 0.02	0.00	0	0	27	4	0		Southern Pacific Co.
Gonzales **	Monterey	127	13	69.5	+ 9.1	88	3†	58	1		0.00	0.00	0.00	0	0	31	0	0	s.	Do.
Grass Valley	Nevada	2,690	40	68.8		89	23	42	15	34	0.00	− 0.05	0.00	0	0	31	0	0	sw.	F. R. Hull.
Greenland Ranch	Inyo	− 178	1	96.0		120	8	68	19	43	0.00		0.00	0	0	31	0	0		J. W. Corkhill.
Greenville	Plumas	3,600	18	61.2	− 3.6	93	6†	28	30	56	0.00	− 0.28	0.00	0	0	21	5	5	sw.	C. H. Higbie.
Groveland	Tuolumne	2,828	3	66.0		92	7	40	29	42	0.00		0.00	0	0	29	2	0		H. S. Richardson.
Guinda **	Yolo	350	14	72.5	− 8.9	100	25	46	21†		0.00	− 0.02	0.00	0	0	24	7	0	n.	Southern Pacific Co.
Hanford	Kings	249	12																	Santa Fe Co.
Healdsburg	Sonoma	110	19	68.2	+ 1.7	101	6	44	22†	52	0.00	− 0.01	0.00	0	0	18	0	13	s.	F. J. Kinley.
Hearst	Mendocino	1,800	2	72.0		94	7	51	29	42	0.01		0.01	0	1	30	1	0	w.	H. D. Ellmaker.
Heber	Imperial	− 20	6	86.0		112	7	58	30	49	0.13		0.09	0	2	20	11	0	se.	C. J. Booth.
Hetch Hetchy	Tuolumne	3,665	2	66.5		96	6†	40	30	50	T.		T.	0	0	30	1	0	n.	E. W. Brown.
Hollister	San Benito	284	38	63.8	− 2.9	97	6	40	30	47	0.00	− 0.04	0.00	0	0	31	0	0	w.	J. N. Thompson.
Hornbrook **	Siskiyou	2,154	24	63.2	− 9.6	92	8	43	25		0.00	− 0.24	0.00	0	0	20	8	3		Southern Pacific Co.
Hot Springs	Tulare	3,300	5	66.2		95	7	48	30	34	0.00		0.00	0	0	30	1	0		U. S. Forest Service.
Hulbville	Lake	2,250	5	66.8		95	6	38	29	44	0.00		0.00	0	0	9	22	0	sw.	T. H. Betterton.

TABLE 1.—*Climatological data for August, 1912. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Continued.																				
Idyllwild	Riverside	5,250	11																	Earl Powers.
Independence	Inyo	3,907	16																	U. S. Weather Bureau.
Indio	Riverside	− 20	34	89.1	− 3.9	115	7	62	19	38	0.00	− 0.17	0.00	0	0	29	0	2	nw.	F. N. Johnson.
Inskip	Butte	4,975	5	65.2	.....	86	7	42	29	28	0.00	.....	0.00	0	0	13	17	1	.....	Cal. Gas & Elec. Co.
Ione **	Amador	287	34	77.1	− 1.0	106	7	52	30	....	0.00	0.00	0.00	0	0	31	0	0	nw.	Southern Pacific Co.
Jamestown	Tuolumne	1,471	9	71.2	.....	100	6†	43	29	45	0.00	.....	0.00	0	0	31	0	0	.....	Sierra Railway Co.
Kennett	Shasta	730	....	77.4	.....	106	7	53	25	47	0.00	.....	0.00	0	0	21	10	0	ne.	O. J. Egleston.
Kentfield	Marin	65	24	65.1	.....	94	6	44	30	46	0.00	0.00	0.00	0	0	25	4	2	.....	Miss M. E. Parsons.
King City	Monterey	333	25	80.1	+13.0	103	7	51	30	39	0.00	0.00	0.00	0	0	31	0	0	s.	Southern Pacific Co.
Lake Eleanor	Tuolumne	4,700	2	63.2	.....	91	6†	36	30	43	0.00	.....	0.00	0	0	29	2	0	se.	O. J. Todd.
La Porte	Plumas	5,000	18	57.4	− 3.9	88	10	31	19	52	0.00	− 0.16	0.00	0	0	19	12	0	n.	Chas. W. Hendel.
Le Grand	Merced	255	12	73.4	− 3.8	106	7	45	31	45	0.00	0.00	0.00	0	0	31	0	0	.....	Santa Fe Co.
Lemon Cove	Tulare	600	17	79.2	− 0.8	108	7	51	29†	46	0.00	0.00	0.00	0	0	31	0	0	w.	G. W. Sandidge.
Lick Observatory	Santa Clara	4,209	23	64.6	− 4.8	84	6	41	29	29	0.00	− 0.02	0.00	0	0	31	0	0	nw.	The Director.
Livermore	Alameda	485	41																	E. G. Still.
Lodi	San Joaquin	45	30	71.4	− 1.6	101	6	47	29†	41	0.00	− 0.03	0.00	0	0	31	0	0	w.	Ezra Fiske.
Lone Pine	Inyo	2,728	7	70.0	.....	95	7†	40	31	49	0.00	.....	0.00	0	0	30	1	0	s.	G. F. Marsh.
Long Valley	Lassen	4,400	3	69.0*	.....	95	7	37	30	45	0.36	.....	0.20	0	4*	9*	13*	9	sw.	A. G. Evans.
Los Angeles	Los Angeles	293	35	69.2	+ 0.6	88	7	52	3	32	0.00	− 0.03	0.00	0	0	19	12	0	s.	U. S. Weather Bureau.
Los Banos **	Merced	121	25	77.3	− 1.5	101	7	62	31	....	0.00	− 0.01	0.00	0	0	30	0	1	w.	Southern Pacific Co.
Los Gatos	Santa Clara	600	25	66.7	− 0.5	95	6†	45	29	43	0.00	− 0.05	0.00	0	0	29	2	0	n.	F. H. McCullagh.
McCloud	Siskiyou	3,410	2	59.6	.....	83	7	34	16	39	0.12	.....	0.09	0	2	24	7	0	.....	F. F. Spencer.
MacDoel	do	4,528	7	57.7	.....	91	23	21	16	64	0.67	.....	0.48	0	2	10	0	21	n.	Butte Valley Land Co.
Madeline	Lassen	5,270	3	60.0	.....	90	7†	20	29	52	0.16	.....	0.07	0	4	17	12	2	w.	J. H. Williams.
Magalia	Butte	2,321	8	69.6	.....	96	7	40	28	41	0.00	.....	0.00	0	0	31	0	0	se.	Butte Co. R. R. Co.
Mammoth Tank	Imperial	257	34	93.8	− 3.0	114	5†	64	29	40	0.00	− 0.34	0.00	0	0	28	1	2	w.	Southern Pacific Co.
Maricopa	Kern	640	1	79.4	.....	105	7	56	29	34	0.00	.....	0.00	0	0	29	2	0	e.	Union Oil Co.
Marysville	Yuba	67	41	74.8	− 4.1	105	6	45	30	47	0.00	− 0.01	0.00	0	0	31	0	0	s.	Southern Pacific Co.
Mecca	Riverside	− 185	6	87.5	.....	112	6†	62	18	46	0.28	.....	0.18	0	2	24	7	0	se.	E. A. Palmer.
Menlo Park **	San Mateo	64	34																	Southern Pacific Co.
Merced	Merced	173	38	77.4	− 1.9	105	7	52	31	36	0.00	− 0.02	0.00	0	0	31	0	0	nw.	Santa Fe Co.
Middlewater	Kern		1																	Union Oil Co.
Mill Creek (1)	Amador		5	63.8	.....	90	6†	40	26†	38	0.00	.....	0.00	0	0	31	0	0	n.	Cal. Gas & Elec. Co.
Milton (near)	Calaveras	660	21	74.4	− 1.9	103	7	50	29	37	0.00	− 0.01	0.00	0	0	30	1	0	nw.	J. H. Southwick.
Modesto **	Stanislaus	90	40	82.7	+ 3.0	100	6†	65	1†	....	0.00	0.00	0.00	0	0	31	0	0	.....	Southern Pacific Co.
Mojave	Kern	2,751	35	79.2	− 5.0	98	7	63	29	26	0.00	− 0.09	0.00	0	0	27	4	0	.....	Do.
Mokelumne Hill	Calaveras	1,550	19	72.9	− 1.3	99	7	47	29	33	0.00	− 0.02	0.00	0	0	28	0	3	.....	C. E. Prindle.
Mono Ranch	Ventura	3,210	6	63.6	.....	89	7†	41	29†	41	0.00	.....	0.00	0	0	31	0	0	w.	Herbert Lathrop.
Montague	Siskiyou	2,450	24	66.1	− 9.2	97	23	35	30	52	0.34	+ 0.13	0.24	0	3	16	13	2	n.	I. E. Deboy.
Monterey	Monterey	15	47	65.0	+ 3.1	78	6†	56	18†	....	0.00	− 0.02	0.00	0	0	31	0	0	w.	Southern Pacific Co.
Monterio	Kern	4,500	13	70.0	− 6.4	96	11	48	27†	30	0.00	− 0.16	0.00	0	0	30	1	0	nw.	John C. Knecht.
Mount Tamalpais	Marin	2,375	13	64.4	− 1.5	87	6	46	29	20	0.00	− 0.01	0.00	0	0	28	3	0	nw.	U. S. Weather Bureau.
Napa City	Napa	20	35	62.2	− 2.5	98	6	40	23†	49	0.00	− 0.02	0.00	0	0	20	11	0	sw.	Alex. Hall.
Napa (S. H.)	do	60	34																	W. H. Martin.
Needles	San Bernandino	477	20	87.4	− 5.3	108	8	65	31	34	0.15	− 0.44	0.14	0	2	29	1	1	.....	Santa Fe Co.
Nellie	San Diego	5,350	3	72.2	.....	91	13	45	19†	36	1.05	.....	1.05	0	1	29	0	2	.....	T. O. Bailey.
Nevada City	Nevada	2,580	20	65.2	− 2.9	98	7	35	30	49	0.00	− 0.05	0.00	0	0	29	2	0	sw.	S. W. Marsh.
Newhall **	Los Angeles	1,200	35	72.0	− 5.3	101	6	58	31	....	0.00	− 0.03	0.00	0	0	31	0	0	se.	Southern Pacific Co.
Newman	Stanislaus	91	23	76.4	− 3.8	106	7	49	16†	43	0.00	− 0.02	0.00	0	0	31	0	0	n.	E. S. Wangenheim.
North Bloomfield	Nevada	3,214	15	68.6	− 1.8	95	6†	45	29	39	0.00	− 0.06	0.00	0	0	28	2	1	w.	J. R. McIntosh.
North Fork	Madera	3,000	8																	U. S. Forest Service.
Oakdale **	Stanislaus	156	18	77.2	+ 1.0	103	6†	58	1†	....	0.00	− 0.01	0.00	0	0	31	0	0	nw.	Southern Pacific Co.
Oak Grove	San Diego	2,751	2	69.0	.....	100	5†	41	4†	56	0.29	.....	0.29	0	1	25	5	1	nw.	B. L. Johnson.
Oakland	Alameda	36	36	63.6	+ 2.3	80	7	51	29	25	0.00	− 0.03	0.00	0	0	15	14	2	w.	Chabot Observatory.
Oceanside	San Diego	60	2	72.2	.....	81	29	55	6	23	0.05	.....	0.05	0	1	21	9	1	w.	H. D. Brodie.
Ojai Valley	Ventura	900	6	68.5	.....	102	6	43	28	50	0.00	.....	0.00	0	0	31	0	0	sw.	W. H. Duncan.
Orland	Glenn	254	30	77.0	− 7.2	106	6	51	28	44	0.00	− 0.02	0.00	0	0	26	5	0	se.	U. S. Reclamation Service.
Orleans	Humboldt	520	9	74.4	.....	103	12	45	3	49	T.	.....	T.	0	0	30	1	0	.....	F. T. Hale.
Oroville (near)	Butte	250	28	75.0	− 3.6	107	6	50	28†	45	0.00	− 0.02	0.00	0	0	27	3	1	s.	E. D. Fairchild.
Palermo	do	213	21	75.8	− 0.8	102	10	48	9†	44	0.00	− 0.03	0.00	0	0	21	8	2	ne.	Western Pacific Co.
Palm Springs **	Riverside	584	23																	Southern Pacific Co.
Pasadena	Los Angeles	827	22	68.1	− 5.4	97	5†	43	28	45	0.00	− 0.02	0.00	0	0	28	2	1	sw.	E. D. Sorver.
Paso Robles	San Luis Obispo	800	25	67.4	− 2.8	106	7†	36	31	60	0.00	− 0.07	0.00	0	0	31	0	0	nw.	Dr. F. W. Sawyer.
Peachland	Sonoma	190	16	63.9	+ 0.2	100	6	39	22†	54	0.01	− 0.02	0.01	0	1	26	5	0	sw.	E. H. Parnell.
Placerville	El Dorado	1,875	23	66.8	− 3.1	96	6	42	30	42	0.00	− 0.03	0.00	0	0					A. Baring-Gould.
Point Lobos	San Francisco	250	19	58.2	+ 0.7	73	7	49	4	22	0.00	− 0.03	0.00	0	0	9	12	10	w.	John Hyslop.
Point Reyes	Marin	490	20	54.7	+ 0.1	64	27	49	6	14	0.00	− 0.08	0.00	0	0	11	10	10	nw.	U. S. Weather Bureau.
Porterville	Tulare	464	23	78.9	− 3.7	106	7	50	30	43	0.00	− 0.01	0.00	0	0	31	0	0	.....	Leslie McAuliff.
Quincy	Plumas	3,400	17	61.3	− 2.4	90	23	28	30	52	0.20	+ 0.04	0.20	0	1	26	5	0	sw.	U. S. Forest Service.
Red Bluff	Tehama	307	35	76.9	− 4.1	102	6	54	29	37	0.00	− 0.02	0.00	0	0	24	7	0	se.	U. S. Weather Bureau.
Redding	Shasta	552	37	79.4	− 1.6	107	6†	57	26†	42	0.00	− 0.07	0.00	0	0	31	0	0	nw.	W. W. Jones.
Redlands	San Bernardino	1,352	19	72.7	− 4.5	102	6	49	30†	46	T.	− 0.34	T.	0	0	27	4	0	w.	P. W. Moore.
Reedley	Fresno	347	12	76.2	− 3.6	104	7	53	29	41	0.00	0.00	0.00	0	0	31	0	0	nw.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	6	72.8	.....	97	6†	52	1†	33	0.00	.....	0.00	0	0	21	8	2	sw.	Southern Cal. Edison Co.
Riverside	Riverside	851	30	71.8	− 4.6	102	5†	46	3†	54	0.05	− 0.09	0.05	0	1	28	3	0	sw.	J. N. D. Cox.
Rocklin	Placer	249	41	74.6	− 3.6	103	6†	48	30	45	0.00	− 0.04	0.00	0	0	31	0	0	se.	Southern Pacific Co.
Rohnerville	Humboldt	75	9	60.4	.....	75	11	40	29	32	0.15	.....	0.15	0	1	19	6	6	nw.	Dr. R. Callahan.
Sacramento	Sacramento	71	35	71.6	− 0.5	101	6	50	30	39	0.00	0.00	0.00	0	0	31	0	0	s.	U. S. Weather Bureau.
St. Helena	Napa	255	4	68.9	.....	103	7	43	24	50	0.00	.....	0.00	0	0	31	0	0	.....	E. E. Hooper.
Salinas	Monterey	40	38	63.3	+ 1.7	77	27	41	30	35	0.00	− 0.02	0.00	0	0	30	0	1	w.	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	20	73.2	− 2.5	104	5†	47	30†	56	0.06	− 0.09	0.04	0	2	20	10	1	sw.	Dr. A. K. Johnson.
San Diego	San Diego	93	41	66.4	− 2.3	79	7	56	5	22	0.26	+ 0.14	0.21	0	2	19	11	4	sw.	U. S. Weather Bureau.
San Francisco	San Francisco	207	41	59.9	+ 1.9	77	7	50	5	25	0.00	− 0.01	0.00	0	0	20	8	3	w.	Do.
San Jacinto	Riverside	1,550	19	73.9	− 2.2	104	6	48	31	50	0.50	+ 0.28	0.50	0	1	30	0	1	.....	E. T. Tanner.
San Jose	Santa Clara	95	37	65.1	− 1.6	90	7	44	30	40	0.00	− 0.03	0.00	0	0	27	4	0	nw.	U. S. Weather Bureau.
San Luis Obispo	San Luis Obispo	201	17	63.2	− 0.3	94	6	46	31	45	0.00	0.00	0.00	0	0	23	6	2	nw.	Do.
San Mateo **	San Mateo	22	38	70.2	− 5.0	89	7	57	12	....	0.00	− 0.01	0.00	0	0	24	7	0	nw.	Southern Pacific Co.
San Miguel **	San Luis Obispo	616	25	75.4	+ 1.5	101	7	50	29	....	0.00	− 0.03	0.00	0	0	29	2	0	.....	Do.
San Miguel Island	Santa Barbara	500	18																	Capt. W. G. Waters.
Sanger **	Fresno	371	23	86.9	+ 2.6	110	12	69	29	....	0.00	− 0.02	0.00	0	0	31	0	0	.....	Southern Pacific Co.
Santa Barbara	Santa Barbara	130	28	63.4	− 3.5	85	7	49	29	33	T.	− 0.01	T.	0	0	29	1	1	w.	G. W. Russell.
Santa Clara	Santa Clara	90	23	65.4	+ 1.1	94	7	41	30	48	0.00	− 0.04	0.00	0	0	31	0	0	nw.	Santa Clara College.
Santa Cruz	Santa Cruz	20	39	63.0	− 1.5	89	6	42	30	43	0.00	− 0.04	0.00	0	0	24	3	4	w.	W. R. Springer.
Santa Margarita **	San Luis Obispo	996	23	73.2	+ 2.6	100	1	55	3†	....	0.00	− 0.02	0.00	0	0	18	13	0	s.	Southern Pacific Co.

TABLE 1.—*Climatological data for August, 1912. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
California—Continued.																			
Santa Maria	Santa Barbara	220	24	63.0	− 1.8	81	22	43	23	36	0.00	− 0.04	0.00	0	0	31	0	0	w.	Edwin Morris.
Santa Monica	Los Angeles	110	27	62.2	− 6.2	75	7	50	3†	25	0.00	− 0.04	0.00	0	0	22	9	0	w.	N. D. Ingham.
Santa Rosa	Sonoma	181	23	65.4	+ 0.2	96	6	40	29	49	0.00	− 0.01	0.00	0	0	29	2	0	s.	Southern Pacific Co.
Selma **	Fresno	311	26	77.7	− 4.8	102	6	65	14†	....	0.00	0.00	0.00	0	0	31	0	0	.....	Do.
Seven Oaks	San Bernardino	5,000	2	64.1	.....	92	7	36	17	43	0.00	.....	0.00	0	0	26	4	1	w.	M. Lewis.
Shasta	Shasta	1,048	16	72.4	− 8.0	101	22	47	6†	51	0.00	− 0.05	0.00	0	0	31	0	0	nw.	Dr. T. J. Edgecomb.
Sierra Madre	Los Angeles	1,400	15	71.0	− 1.6	97	6	54	2	38	0.00	− 0.07	0.00	0	0	29	0	2	s.	Mrs. A. E. Gregory.
Sierraville	Sierra	5,000	2	59.2	.....	90	6†	25	30	57	0.21	.....	0.21	0	1	25	4	2	sw.	C. D. Johnson.
Sisson	Siskiyou	3,555	23	62.1	− 6.5	87	11	35	18†	49	0.56	+ 0.23	0.56	0	1	21	3	7	s.	Southern Pacific Co.
Soledad **	Monterey	188	38	68.4	+ 3.3	88	5	57	13†	....	0.00	0.00	0.00	0	0	31	0	0	n.	Do.
Sonora	Tuolumne	1,825	24	71.7	.....	99	7	48	30	41	0.00	− 0.04	0.00	0	0	30	1	0	w.	Chas. P. Jones.
Southeast Farallon	San Francisco	30	9	55.2	.....	63	26†	50	3	10	0.00	.....	0.00	0	0	14	12	5	nw.	U. S. Weather Bureau.
Springville	Tulare	4,000	5	67.6	.....	91	6†	45	31	35	0.00	.....	0.00	0	0	30	1	0	.....	D. L. Wishon.
Squirrel Inn	San Bernardino	5,280	2	63.3	.....	82	5†	41	18	32	0.31	.....	0.31	0	1	29	1	1	s.	A. D. Frantz.
Stanwood	Butte	2,140	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cal. Gas & Elec. Co.
Stirling City	do	3,525	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Butte Co. R. R. Co.
Stockton (S. H.)	San Joaquin	23	41	70.9	− 1.6	98	6†	50	1†	38	0.00	− 0.01	0.00	0	0	29	2	0	nw.	State Hospital.
Storey	Madera	296	12	74.2	− 2.8	104	7	45	30	47	0.00	0.00	0.00	0	0	31	0	0	.....	Santa Fe Co.
Suisun **	Solano	20	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Sulphur Banks	Lake	1,350	....	70.8	.....	96	22	51	14†	42	0.00	.....	0.00	0	0	24	5	2	w.	J. T. La Bree.
Summerdale	Mariposa	5,270	16	64.4	− 2.7	87	6	42	30	31	0.00	− 0.13	0.00	0	0	29	1	1	nw.	Bertus Gude, jr.
Summit	Placer	7,017	39	51.6	− 8.7	68	16†	27	26	34	0.00	− 0.11	0.00	0	0	31	0	0	sw.	Southern Pacific Co.
Susanville	Lassen	4,175	23	62.6	− 6.4	89	7	34	30	41	0.22	− 0.03	0.11	0	3	23	8	0	sw.	James Branham.
Tamarack	Alpine	8,000	6	54.0	.....	78	6†	32	3	40	0.00	.....	0.00	0	0	21	10	0	sw.	Cal. Gas & Electric Co.
Tehachapi **	Kern	3,964	35	74.8	+ 0.3	86	4	64	22	....	0.00	− 0.15	0.00	0	0	29	2	0	.....	Southern Pacific Co.
Tehama	Tehama	220	41	74.4	− 6.9	98	7	58	17†	....	0.00	− 0.04	0.00	0	0	26	1	4	s.	Do.
Tejon Rancho	Kern	1,500	10	71.6[d]	.....	92	19	45	16	25	0.00	.....	0.00	0	0	31	0	0	.....	S. E. Bailey.
Three Rivers	Tulare	870	2	74.2	.....	102	7	46	30	43	0.00	.....	0.00	0	0	30	1	0	sw.	E. D. Barton.
Towle	Placer	3,704	26	69.7	+ 1.2	92	4†	42	31	48	0.00	− 0.01	0.00	0	0	26	0	5	se.	Southern Pacific Co.
Tracy **	San Joaquin	64	32	79.2	+ 1.7	104	7†	60	29	....	0.00	− 0.01	0.00	0	0	25	6	0	nw.	Do.
Ukiah	Mendocino	620	19	70.4	− 0.3	103	11	39	30	53	0.00	− 0.01	0.00	0	0	26	5	0	nw.	Dr. Geo. McCowen.
Upper Lake	Lake	1,350	27	69.6	− 3.5	100	6†	38	30	54	0.00	− 0.04	0.00	0	0	31	0	0	nw.	C. M. Hammond.
Vacaville	Solano	175	24	73.2	− 1.3	105	6	46	28	48	0.00	− 0.03	0.00	0	0	31	0	0	sw.	G. C. Coburn.
Valley Springs **	Calaveras	673	23	77.4	− 0.5	102	6	61	27	....	0.00	− 0.01	0.00	0	0	31	0	0	nw.	Southern Pacific Co.
Visalia	Tulare	334	24	70.4	− 8.0	102	11	40	26	51	0.00	0.00	0.00	0	0	31	0	0	.....	Santa Fe Co.
Warner Springs	San Diego	3,165	4	68.8	.....	94	6	43	30	45	0.39	.....	0.38	0	2	26	3	2	.....	Mrs. F. S. Sandford.
Wasco	Kern	336	12	78.8[c]	− 0.8	104	8	51	30	45	0.00	− 0.02	0.00	0	0	.....	.....	.....	.....	Santa Fe Co.
Watsonville	Santa Cruz	23	16	56.4	− 5.8	84	8	30	30	51	0.00	− 0.01	0.00	0	0	9	21	1	sw.	Spreckels Sugar Co.
Weaverville	Trinity	.....	....	65.6	.....	93	12†	35	29	51	T.	.....	T.	0	0	21	7	3	w.	U. S. Forest Service.
Weitchpec	Humboldt	1,700	2	64.3	.....	91	23	37	29	40	0.27	.....	0.27	0	1	28	2	1	sw.	M. E. Lathrop.
Westley **	Stanislaus	90	23	76.3	− 2.9	103	6†	60	3†	....	0.00	0.00	0.00	0	0	31	0	0	n.	Southern Pacific Co.
Wheatland	Yuba	84	25	72.9	− 2.2	100	6†	47	30	40	0.00	− 0.03	0.00	0	0	21	10	0	nw.	William Lumbard.
Willows	Glenn	136	33	79.9	− 1.7	107	6	58	27†	34	0.00	− 0.03	0.00	0	0	27	4	0	se.	E. C. Mills.
Yosemite	Mariposa	3,945	8	65.6	.....	99	7	33	30	57	0.00	.....	0.00	0	0	31	0	0	s.	J. P. Kelley.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 11, California.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon.																															
Klamath Agency	Klamath			1.02														.07										.50					1.52
Klamath Falls	do			1.34																									.40			.08	1.89
Lakeview	Pitt																																
Long Valley	do																																
Merrill	Interior drainage		1.40																			.11							.09				1.60
Yonna	do		.13	.16													.23					.27					T.		.13			.06	0.98
California.																																	
Aguanga	Coast																												.31	.13			0.44
Alameda	do																																
Alturas	Sacramento	.04	.37	.12																													0.53
Angels Camp	San Joaquin																																0.00
Angiola	do																																0.00
Antelope Valley	do																																0.00
Antioch	do																																0.00
Aptos.?	Coast																																0.00
Arrowhead Springs	do																																
Auburn	Sacramento																																0.00
Avalon	Ocean																																0.00
Azusa	Coast																																0.00
Bagdad	Desert																																0.00
Bakersfield	San Joaquin																																0.00
Barstow	Desert																																0.00
Bear River	San Joaquin																																
Bear Valley (1)	Sacramento																																0.00
Bear Valley (2)	San Joaquin																																
Bear Valley Dam	do																																
Beaumont	do																												.16				0.16
Beaumont (near)	do																												.02				0.02
Belotta	do																																
Ben Lomund	Coast																																0.00
Berkely	do																																0.00
Biggs	Sacramento																																0.00
Bishop	Owens																																
Bishop Creek	do																																0.00
Blocksburg	Coast																															T.	T.
Blue Canon	Sacramento																																0.00
Blythe	Desert																							T.					T.				T.
Boulder Creek	Coast																																0.00
Branscomb	do																																0.00
Brawley	Desert																												T.	T.			T.
Burney	Sacramento																																0.00
Butte Valley	do																																
Cahuilla	Coast																												.01	.01			0.02
Calexico	Desert																												.85				0.85
Caliente	San Joaquin																																0.00
Calistoga	Coast																																0.00
Campbell	do																																0.00
Campo	do																												.20				0.20
Camptonville (near)	Sacramento																																0.00
Cedarville	M't'n Lakes																																
Chester	Sacramento	.25	.02																			T.											0.27
Chico	do																																0.00
Chico (near)	do																																0.00
China Flat	Coast																															T.	T.
Chino	do																																0.00
Cisco	Sacramento																																
Claremont	Coast																																
Cloverdale	do																																0.00
Coalinga	San Joaquin																																0.00
Colfax	Sacramento																																0.00
Colgate	do																																0.00
Colusa	do																																0.00
Corning	do																																0.00
Corona	Coast																												.03				0.03
Cuyamaca	do																											.05	.40	.19			0.64
Davisville	Sacramento																																0.00
Deer Creek	do																																0.00
Del Monte	Coast																																0.00
Delta	Sacramento		.37																														0.37
Denair	San Joaquin																																0.00
De Sabla	Sacramento																																0.00
Descanso	Coast																												.30				0.30
Devils Canon	do																												.12				0.12
Dinuba	San Joaquin																																0.00
Dobbins	Sacramento																																0.00
Downieville	do																																0.00
Dudley	San Joaquin																																0.00
Dudleys	do																																0.00
Dunlap (near)	do																																
Dunnigan	Sacramento																																0.00
Dunsmuir	do			.44																													0.44
Durham	do																																0.00
East Park	do																																0.00
Edgewood	do	.02			.04																								.11				0.17
Edison	San Joaquin																																0.00
El Cajon	Coast																												.25	.07			0.32
Electra	San Joaquin																																0.00
Elsinore	Coast																												.05	.05			0.10
Emigrant Gap	Sacramento																																0.00
Escondido	Coast																												.23	.14			0.37
Eureka	do															.03										.01						.04	0.08
Fairmont	do																																0.00
Farmington	San Joaquin																																0.00
Felton	Coast																																0.00
Firebaugh	San Joaquin																																
Folsom	Sacramento																					T.											T.
Fordyce Dam	do																																0.00

TABLE 2.—*Daily precipitation for August, 1912. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***California*—Contd.**																															
Fort Bidwell	M't'n Lakes		.20	.10														T.				T.									0.30
Fort Bragg	Coast																														0.00
Fort Ross	do																														0.00
Fouts Springs	Sacramento																														
Fredalba	Coast																											.20			0.20
Fresno	San Joaquin																														0.00
Friant	do																														
Fruto	Sacramento																														
Galt	San Joaquin																													.11	0.11
Georgetown	do																														
Gilroy	Coast																														0.00
Gilta	do																													.11	0.11
Glendora	do																														
Glen Ranch	do																														0.00
Glennville	San Joaquin																														0.00
Glenwood	Coast																														0.00
Gold Run	Sacramento																														0.00
Gonzales	Coast																														0.00
Grass Valley	Sacramento																														0.00
Greenland Ranch	Desert																														0.00
Greenville	Sacramento																														0.00
Gridley	do																														0.00
Groveland	San Joaquin																														0.00
Guinda	Sacramento																														0.00
Hanford	San Joaquin																														
Head Dam	Sacramento																														0.00
Healdsburg	Coast																														0.00
Hearst	do			.01																											0.01
Heber	Desert																											.09	.04		0.13
Helen Mine	Coast																														0.00
Hetch Hetchy	San Joaquin																										T.				T.
Holcomb	Coast																														0.00
Hollister	do																														0.00
Hornbrook	Klamath																														0.00
Hot Springs	San Joaquin																														0.00
Hullville	Coast																														0.00
Idyllwild	do																														
Independence	Owens																														
Indio	Desert																														0.00
Inskip	Sacramento																														0.00
Ione	San Joaquin																														0.00
Jacksonville	do																														0.00
Jamestown	do																														0.00
Jenny Lind	do																														0.00
Jolon	Coast																														0.00
Julian	do																												.45		0.45
Kennedy Mine	San Joaquin																														0.00
Kennett	Sacramento																														0.00
Kentfield	Coast																														0.00
Kernville	San Joaquin																														
King City	Coast																														0.00
Knights Landing	Sacramento																														0.00
La Grange	do																														0.00
La Jolla	Coast																											.87	.09		0.96
Lake Eleanor	San Joaquin																														0.00
Lakeside	Coast																														
La Porte	do																														0.00
Lathrop	San Joaquin																														0.00
Laurel	Coast																														0.00
Laytonville	do																														
Le Grand	San Joaquin																														0.00
Lemon Cove	do																														0.00
Lick Observatory	Coast																														0.00
Livermore	do																														
Lodi	San Joaquin																														0.00
Lone Pine	Owens																														0.00
Long Valley	Mtn. Lakes	.03	.20															.11	.02												0.36
Lordsburg	Coast																														
Los Alamos	do																														
Los Angeles	do																														0.00
Los Banos	San Joaquin																														0.00
Los Gatos	Coast																														0.00
Los Molinos	Sacramento																														0.00
Lowe Observatory	Coast																														0.00
McCloud	Sacramento		.09	.03																											0.12
McDoel	Klamath	.48		.19																											0.67
Magdeline	Mtn. Lakes	.07	.03	.03														.03												T.	0.16
Magalia	Sacramento																														0.00
Mammoth Tank	Desert																														0.00
Maricopa	San Joaquin																														0.00
Mariposa	do																														
Marysville	Sacramento																														0.00
Mecca	Desert																										.18	T.	.10	T.	0.28
Melones	San Joaquin																														
Menlo Park	Coast																														
Merced	San Joaquin																														0.00
Merced Falls	do																														
Mesa Grande	Coast																											.34	.09		0.43
Middlewater	San Joaquin																														
Mill Creek (1)	do																														0.00
Mill Creek (2)	Coast																												.11		0.11
Mills College	do																														0.00
Milo	San Joaquin																														0.00
Milton (near)	do																														0.00
Modesto	do																														0.00
Mojave	Desert																														0.00
Mokelumne Hill	San Joaquin																														0.00
Mono Ranch	Coast																														0.00
Montague	Klamath		.24	.03																								T.	.07		T.	0.34

TABLE 2.—*Daily precipitation for August, 1912. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California—Contd.																																	
Monterey	Coast																																0.00
Monterio	San Joaquin																																0.00
Montgomery Creek	Sacramento																																
Mount Tamalpais	Coast																																0.00
Mount St. Helena	do																																0.00
Napa City	do																																0.00
Napa (S. H.)	do																																0.00
Needles	Desert																												.01	.14			0.15
Nellie	Coast																												1.05				1.05
Nevada City	Sacramento																																0.00
Newcastle	do																																
Newhall	Coast																																
Newman	San Joaquin																																0.00
North Bloomfield	Sacramento																																0.00
North Fork	San Joaquin																																
North Lakeport	Coast																																0.00
Oakdale	San Joaquin																																
Oak Grove	Coast																												.29				0.29
Oakland	do																																0.00
Oakville	do																																0.00
Oceanside	do																												.05	T.			0.05
Ojai Valley	do																																0.00
Orland	Sacramento																																0.00
Orleans	Klamath																															T.	T.
Oroville	Sacramento																																0.00
Oxeana	Coast																																0.00
Palermo	Sacramento																																0.00
Palm Springs	Desert																																
Parkfield	Coast																																0.00
Pasadena	do																																
Paso Robles	do																																0.00
Peachland	do													.01																			0.01
Phoenix Dam	SanJoaquin																																0.00
Pilot Creek	Sacramento																																0.00
Pinchot	Coast																																
Pine Crest	do																																0.00
Placerville	Sacramento																																0.00
Point Lobos	Coast																																0.00
Point Loma	do					T.	.02	.02																					.04	.33			0.41
Point Reyes	do																																0.00
Porterville	San Joaquin																																0.00
Portulaca	do																																
Prattville	Sacramento	T.	T.																														T.
Priest Valley	Coast																																0.00
Quincy	Sacramento	.20																															0.20
Red Bluff	do																																0.00
Redding	do																																0.00
Redlands	Coast																												T.				T.
Reedley	San Joaquin																																0.00
Represa	Sacramento																																0.00
Rialto (near)	Coast																																0.00
Rio Vista	Sacramento																																0.00
Riverside	Coast																												.05				0.05
Rocklin	Sacramento																																0.00
Rohnerville	Coast															T.																.15	0.15
Sacramento	Sacramento																																0.00
Saint Helena	Coast																																0.00
Salinas	do																																0.00
San Bernardino	do																												.04	.02			0.06
San Diego	do																												.15	.11			0.26
San Francisco	do																																0.00
San Jacinto	do																												.50				0.50
San Jose	do																																0.00
San Luis Obispo	do																																0.00
San Mateo	do																																0.00
San Miguel	do																																0.00
San Miguel Island	Ocean																																
Sanger	San Joaquin																																0.00
Santa Ana River	Coast																												.02				0.02
Santa Barbara	do																																0.00
Santa Clara	do																																0.00
Santa Cruz	do																																0.00
Santa Margarita	do																																0.00
Santa Maria	do																																0.00
Santa Monica	do																																0.00
Santa Rosa	do																																0.00
Sausalito	do																																0.00
Selma	San Joaquin																																0.00
Seven Oaks	Coast																																0.00
Shasta	Sacramento																																0.00
Shingle Springs	San Joaquin																																
Shrively	Coast																																0.00
Sierra Madre	do																																0.00
Sierraville	M't'n Lakes	.21																															0.21
Sisquoc Ranch	Coast																																0.00
Sisson	Sacramento		.56																														0.56
Soledad	Coast																																0.00
Sonora	San Joaquin																																0.00
Southeast Farallon	Ocean																																0.00
Spreckels	Coast																																0.00
Springville	San Joaquin																																0.00
Squirrel Inn	Coast																												.31				0.31
Stanwood	Sacramento																																
Stirling City	do																																
Stockton (S. H.)	San Joaquin																																0.00
Storey	do																																0.00
Suisun	Sacramento																																
Sulphur Banks	do																																0.00
Summerdale	San Joaquin																																0.00
Summit (1)	Sacramento																																0.00

TABLE 2.—*Daily precipitation for August, 1912. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California—Contd.																																	
Summit (2)	Coast																																
Susanville	M't'n Lakes	.11		.05														.06														0.22
Tamarack	Sacramento																																0.00
Tehachapi	San Joaquin																																0.00
Tehama	Sacramento																																0.00
Tejon Rancho	San Joaquin																																0.00
Three Rivers	do																																0.00
Towle	Sacramento																																0.00
Tracy	San Joaquin																																0.00
Tulare	do																																
Tustin (near)	Coast																												T.				T.
Ukiah	do																																0.00
Upland	do																																
Upper Lake	Sacramento																																0.00
Upper Matole	Coast																																0.00
Vacaville	Sacramento																																0.00
Valley Springs	San Joaquin																																0.00
Visalia	do																																0.00
Warner Springs	Coast																												.38	.01			0.39
Wasco	San Joaquin																																0.00
Watsonville	Coast																																0.00
Weaverville	do		T.																													T.	T.
Weitchpec	Klamath															T.			*													.27	0.27
West Branch	Sacramento																																0.00
Westley	San Joaquin																																0.00
West Point	do																																0.00
West Saticoy	Coast																																0.00
Wheatland	Sacramento																																0.00
Willows	do																																0.00
Yosemite	San Joaquin																																0.00

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 11, California.*

Date.	Lakeview, Oreg.		California.																							
			Alturas.§§		Barstow.		Branscomb.		Brawley.		Colusa.		Eureka.		Fresno.		Independence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porterville.		Red Bluff.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	.....	.....	79	55	91	61	77	45	103	70	85	54	60	54	88	58	.....	.....	74	57	67	52	81	44	100	57	88	58
2	.....	.....	80	42	92	65	78	46	104	70	86	55	57	54	92	61	.....	.....	77	57	71	59	81	46	97	60	88	64
3	.....	.....	76	50	92	64	79	45	105	65	89	55	62	53	94	58	.....	.....	77	52	74	57	85	44	96	59	92	62
4	.....	.....	86	43	95	65	82	46	108	68	95	60	59	52	99	65	.....	.....	81	52	82	65	89	45	99	60	97	67
5	.....	.....	88	47	96	64	87	47	108	65	95	62	56	52	103	66	.....	.....	87	55	82	67	91	46	104	63	98	66
6	.....	.....	90	47	99	67	86	45	110	73	99	62	57	51	104	67	.....	.....	87	59	87	71	94	47	104	62	102	69
7	.....	.....	94	48	105	60	86	46	110	69	98	65	62	52	106	71	.....	.....	88	63	83	65	98	49	106	64	102	73
8	.....	.....	88	53	104	68	85	45	110	75	94	64	67	54	97	69	.....	.....	82	58	67	54	86	47	101	64	92	71
9	.....	.....	82	49	103	70	88	48	108	67	90	58	61	53	92	60	.....	.....	81	60	65	55	87	45	101	59	87	63
10	.....	.....	86	43	100	70	89	49	.....	.....	92	60	66	52	94	61	.....	.....	79	60	79	60	88	44	98	59	95	63
11	.....	.....	91	44	100	63	91	50	.....	.....	93	62	63	54	100	67	.....	.....	80	60	82	68	90	47	103	65	98	68
12	.....	.....	91	47	100	65	90	50	104	72	92	62	60	55	99	64	.....	.....	81	60	71	55	90	47	100	63	96	69
13	.....	.....	88	47	100	63	80	46	101	77	89	57	62	55	94	62	.....	.....	77	61	67	50	87	48	96	62	90	62
14	.....	.....	85	43	99	65	71	43	102	69	85	56	65	56	93	62	.....	.....	75	60	63	49	85	46	98	59	88	60
15	.....	.....	77	50	95	65	70	40	102	64	85	56	65	54	88	60	.....	.....	78	60	62	50	79	44	95	57	81	60
16	.....	.....	74	32	92	68	72	43	102	65	85	56	62	48	87	57	.....	.....	78	62	73	54	80	42	91	52	83	60
17	.....	.....	72	36	90	63	78	44	100	64	86	54	63	53	91	57	.....	.....	72	62	68	55	80	38	93	55	85	63
18	.....	.....	79	33	92	62	88	44	96	63	87	64	60	54	92	58	.....	.....	73	61	77	59	84	42	95	56	90	62
19	.....	.....	85	42	96	62	88	47	97	66	90	57	60	53	96	63	.....	.....	77	60	80	67	88	43	100	61	96	64
20	.....	.....	90	42	99	62	81	45	100	63	91	58	58	52	98	61	.....	.....	80	62	68	53	90	46	100	61	94	62
21	.....	.....	92	45	98	64	80	45	102	70	89	56	58	54	95	57	.....	.....	75	61	67	50	88	47	100	62	93	63
22	.....	.....	94	42	102	65	80	45	107	71	92	54	59	53	98	59	.....	.....	78	60	78	59	90	46	100	57	97	61
23	.....	.....	96	43	104	70	82	43	106	79	95	56	60	52	101	62	.....	.....	81	60	78	65	88	47	103	63	100	63
24	.....	.....	90	44	102	64	79	42	102	76	89	56	62	55	98	62	.....	.....	78	59	74	62	90	46	102	63	95	63
25	.....	.....	93	38	104	69	65	42	104	74	88	54	61	56	98	60	.....	.....	81	61	70	55	93	45	104	63	93	60
26	.....	.....	87	42	98	68	67	40	101	81	85	55	63	55	91	60	.....	.....	79	62	60	48	92	47	94	61	86	58
27	.....	.....	76	39	95	65	75	40	98	79	81	55	63	49	90	56	.....	.....	80	63	67	53	92	45	96	59	83	57
28	.....	.....	73	36	93	57	65	41	89	79	84	55	62	50	89	60	.....	.....	81	57	64	48	78	42	95	55	82	59
29	.....	.....	67	43	92	56	74	37	95	76	78	49	61	49	80	54	.....	.....	80	61	61	46	75	37	95	53	80	54
30	.....	.....	78	28	91	58	78	46	95	60	86	49	66	48	87	54	.....	.....	76	60	76	56	82	35	89	50	91	57
31	.....	.....	76	37	94	57	78	48	95	62	86	57	67	56	92	59	.....	.....	76	60	71	55	83	41	95	56	88	58
Mns..	.....	.....	84.0	42.9	97.2	64.0	79.6	44.6	102.2[b]	70.1[b]	89.0	57.2	61.5	52.8	94.4	61.0	.....	.....	79.0	59.5	72.1	56.8	86.2	44.3	98.4	59.4	91.3	62.5

Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Francisco.		San Jose.		San Luis Obispo.		Santa Barbara.		Santa Rosa.		Sisson.		Stockton.		Summit.		Susanville.		Yosemite.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	86	53	81	53	68	63	64	52	77	57	69	55	68	51	78	52	80	48	82	50	61	44	74	56	89	47
2	85	54	80	54	71	61	59	52	77	56	70	53	70	50	80	46	80	46	83	54	60	44	77	46	89	47
3	92	50	91	54	71	62	66	52	83	53	72	52	69	52	85	47	81	49	87	53	60	40	78	47	95	40
4	99	53	96	61	72	61	73	52	89	50	93	48	70	53	89	45	81	51	93	60	64	39	80	46	92	42
5	101	56	96	60	76	56	69	50	88	49	93	50	83	54	92	44	82	42	96	58	63	44	85	50	95	41
6	102	57	101	63	76	56	76	51	90	52	94	49	84	53	96	47	82	43	98	62	65	43	87	49	96	41
7	101	60	98	65	79	57	77	53	90	53	91	53	85	52	94	51	83	46	98	66	63	41	89	63	99	44
8	95	59	86	61	72	62	64	53	76	52	84	51	72	52	89	51	84	47	87	64	61	43	83	51	94	44
9	97	56	82	57	72	64	62	53	75	51	76	49	74	57	81	46	85	46	82	58	62	41	80	50	89	42
10	90	52	93	59	69	62	71	52	85	50	74	48	70	56	90	50	86	45	91	56	64	44	82	48	89	41
11	90	52	94	61	69	62	65	52	87	54	75	49	72	57	87	53	87	44	94	60	61	45	85	46	90	41
12	89	53	84	56	72	62	65	53	85	54	71	49	71	57	85	53	83	46	85	58	65	45	87	47	92	41
13	88	54	79	54	73	65	63	55	73	54	70	52	68	54	73	52	82	45	82	54	66	42	80	48	93	43
14	88	54	80	55	72	66	66	56	73	53	74	52	73	55	78	52	80	44	81	55	67	43	86	49	90	41
15	85	60	81	55	70	63	68	55	73	50	77	50	73	54	83	44	78	41	80	56	66	45	75	48	89	40
16	85	54	84	59	68	62	69	56	78	48	76	52	74	52	86	46	64	46	83	54	68	42	69	38	84	36
17	80	59	85	54	68	62	67	53	80	48	69	44	66	54	88	45	75	38	84	56	62	32	72	42	80	35
18	83	58	87	57	68	62	66	53	82	52	71	53	70	54	86	45	73	35	88	54	63	37	71	35	88	35
19	87	56	91	56	69	61	67	52	85	49	66	51	65	54	85	45	78	46	90	55	62	40	77	42	90	35
20	90	57	86	55	71	58	63	53	77	52	72	53	72	56	73	51	79	47	84	56	65	39	81	47	90	38
21	91	53	85	54	72	60	64	54	77	50	72	46	74	51	78	52	85	45	81	54	68	40	83	49	90	40
22	92	56	92	53	72	65	62	52	76	55	74	49	76	50	81	44	86	46	89	52	66	45	85	47	95	38
23	94	58	93	57	73	63	61	51	74	51	76	49	74	58	79	44	85	46	90	56	67	41	87	47	98	44
24	94	58	87	54	72	62	65	54	74	51	75	51	78	57	80	50	86	45	88	54	68	46	85	48	98	44
25	94	58	87	53	68	64	66	55	73	47	83	50	73	54	80	44	86	45	85	54	66	43	85	44	97	43
26	88	59	78	54	68	64	63	56	72	53	76	50	76	55	75	42	82	42	79	55	61	27	75	45	94	44
27	93	50	82	55	73	63	67	55	79	50	76	50	73	54	81	49	84	38	80	53	67	44	74	40	94	37
28	75	56	82	56	71	64	66	55	75	49	78	46	75	53	82	44	85	36	81	55	54	33	72	39	84	35
29	85	66	75	50	73	64	69	54	74	44	68	49	82	49	80	40	64	35	76	53	53	34	68	36	84	35
30	83	49	88	50	67	60	70	54	84	44	80	50	72	50	84	41	74	38	84	50	50	36	73	34	83	33
31	84	49	86	62	70	60	67	54	77	48	72	46	70	51	90	48	76	43	86	56	52	32	76	42	88	35
Mns	89.9	55.5	86.8	56.4	71.1	61.8	66.5	53.3	79.3	50.9	76.4	50.0	73.3	53.5	83.5	47.2	80.5	43.7	86.0	55.8	62.6	40.5	79.4	45.8	90.9	40.2

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor. THEODORE F. DRAKE, Acting District Editor.

The August rainfall this season was the most remarkable in the history of the district, and the attendant cloudy, cool weather made conditions more representative of the winter than the summer type. The most prominent exception to the foregoing existed in southwestern Oregon where there was little rainfall and normal sunshine. In fact, in the southern half of the State, both east and west of the Cascade Range of Mountains, harvesting conditions were reported to be excellent. Farther north, however, operations were hindered by the the moisture, and numerous reports indicated a probable loss due to the wet weather. Hop growers, in particular, were apprehensive of damage from the heavy rains at the close of the month. In Idaho, where four times the normal amount of rain fell, the weather was extremely unfavorable for the ripening and harvesting of grain, and the curing and gathering of hay crops. In the lower valleys most of the crops matured. A rainfall so heavy as to be locally called a cloudburst visited Huntington, Oreg., on the 2d, and much property loss in the city resulted. A ranch house 7 miles west of Huntington was washed away, involving the loss of four lives. Rains of similar severity caused considerable damage in other portions of the county on the same date, notably near Weatherby, where the flood of water covered the railroad track with gravel for a distance of a quarter of a mile, and interrupted traffic for 24 hours. With this exception transportation of all kinds proceeded without material interruption except in localities where the heavy rains caused very muddy roads, thereby impeding vehicle traffic. Construction work of every nature was carried on almost uninterruptedly throughout the month. The last few days of August were marked by a cold, rainy period, and on the 30th frosts were very general east of the Cascade Mountains.

TEMPERATURE.

August was characterized by cool weather in all sections of the district. There were a few warm days occurring intermittently during the forepart of the month, and one distinct warm spell which began on the 21st and lasted several days. During this period maximum temperatures of 90° and over were recorded at a majority of places in the district, and at stations along the Columbia River east of the Cascade Mountains and in the sheltered valleys of Idaho 100° was not infrequently recorded. This warm period was almost immediately followed by the coolest period of the month, which culminated in light killing frosts on elevated lands in eastern Oregon and eastern Washington, and over practically the entire district east of the Blue Mountains. The weather for the month was coolest along the Oregon-Washington coast, in south-central Oregon, and in the Rocky Mountains. Maximum temperatures, generally, were recorded on the 23d and minimum temperatures on the 30th.

The mean temperature for the month as computed from the records of 264 stations was 63.1°, or 2.1° below the normal. The highest temperature recorded was 106°, at Blalock, Oreg., and Hanford, Wash., on the 23d, and the lowest was 17°, at Roseberry, Idaho, on the 30th. The highest mean temperature was 73.4°, at Blalock, and the lowest 52.6°, at Seneca, Oreg.

PRECIPITATION.

The rainfall was much in excess of the normal in practically all portions of the district, except in Josephine and Jackson Counties in southwestern Oregon, and along the middle reaches of the Snake River in Idaho, where the drought was interrupted by only a few light showers. The rainfall was heaviest in northwestern Oregon and western Washington, and at many places in these sections it exceeded any previous amounts ever recorded in August. In Idaho, also, the rainfall surpassed all records for August, and in the Montana watershed it was double the usual amount. The most pronounced periods of rain were as follows: From the 1st to 3d, 14th to 18th, and 27th to 31st, inclusive, the heaviest precipitation occurring in the last period.

The mean precipitation for the district as computed from the records of 373 stations was 2.04 inches, an excess of 1.75 inches. The greatest daily amount recorded was 3 inches, at Clearbrook, Wash., on the 31st, and the largest monthly amount 9.30 inches, at Yale, Wash. There were four stations, all in Idaho, at which only a trace of rain fell.

THE RIVERS.

The Willamette River fell slowly until about the middle of the month when rather unusually heavy rains occurred that caused it to reach its highest stages before the 20th. The average stages were about one-half foot above normal. At Portland the average was 0.6 foot below normal. The highest stage at Portland was 7.2 feet on the 14th, and the highest at Salem was 2.1 feet on the 18th. The lowest stage at Portland was 4.9 feet on the 30th, and the lowest stage at Salem was 0.2 foot on the 14th and 15th.

The Columbia River fell slowly during the month and averaged 0.9 foot below normal. The highest stage at The Dalles was 13.3 feet on the 1st, and the highest at Umatilla was 7.2 feet, on the same date. The lowest stage at The Dalles was 8.1 feet, on the 29th and 30th, and the lowest at Umatilla was 6.5 feet, on the 27th and 28th.

The Snake River averaged about 1 foot above normal. The highest stage at Lewiston was 3.1 feet, on the 4th, and the lowest stage was 1.2 feet, on the 29th.

MISCELLANEOUS PHENOMENA.

Thunderstorms occurred over the entire district but were of most frequent occurrence in southern Idaho from the 1st to the 3d, and from the 14th to the 17th. Hail was reported from several stations and fog formed at Tatoosh on 13 dates. Frost formed in Idaho, Montana, and eastern Oregon the latter part of the month, but little damage was reported.

TABLE 1.—*Climatological data for August, 1912. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,300	10	57.6	− 3.4	86	26	28	30	42	2.23	+ 1.29	0.72	0	10	9	15	7		C. D. Demond.
Butte	Silver Bow	5,716	17	59.0	− 3.5	88	26	33	30	37	1.92	+ 1.01	0.45	0	7	8	9	14	nw.	J. R. Wharton.
Columbia Falls	Flathead	3,100	16	59.4	− 2.7	93	15	25	30	52	1.65	+ 0.28	0.63	0	7	15	4	12	s.	J. M. Grist.
Como	Ravalli	3,700	3	61.5	.....	93	24	33	30	39	1.14	.....	0.32	0	8	19	4	8	.....	Hiram Platt.
Dayton	Flathead	.....	7	60.5	.....	91	23†	34	30	40	0.92	.....	0.35	0	3	16	7	8	.....	A. J. Ruechell.
East Anaconda	Deer Lodge	5,500	6	58.2	.....	84	9	34	30	33	2.18	.....	.....	0	9	9	16	6	sw.	C. D. Demond.
Fortine	Lincoln	2,975	6	57.4	.....	88	22†	30	13	49	1.65	.....	0.45	0	9	12	3	16	w.	Mike Petery.
Hamilton	Ravalli	3,575	9	62.4	− 2.0	90	24†	35	30	39	1.18	+ 0.40	0.35	0	8	13	7	11	n.	Hamilton Chamber of Commerce.
Hat Creek	Powell	6,000	2	.....	.....	.....	.....	.....	.....	.....	2.51	.....	0.83	0	14	7	15	9	w.	M. K. Landreth.
Haugan	Missoula	3,150	.....	57.8	.....	90	14	31	30	55	1.33	.....	0.85	0	7	9	13	9	sw.	U. S. Forest Service.
Heron	Sanders	2,261	.....	60.9	.....	94	15	36	12†	54	3.35	.....	1.74	0	13	15	2	14	w.	E. Knott.
Kalispell	Flathead	2,965	13	59.8	− 3.1	88	24	33	30	44	1.03	+ 0.14	0.51	0	9	9	16	6	w.	U. S. Weather Bureau.
Libby	Lincoln	2,055	2	59.7	.....	92	8	32	30	54	1.46	.....	0.93	0	6	11	13	7	.....	U. S. Forest Service.
Lost Creek	Deer Lodge	5,200	2	.....	.....	.....	.....	.....	.....	.....	1.84	.....	0.65	0	5	15	6	10	w.	Frank Henault.
Missoula	Missoula	3,225	32	63.0	0.0	91	24	30	30	48	1.88	+ 1.07	0.65	0	11	.....	.....	.....	sw.	U. S. Weather Bureau.
Ophir	Powell	6,800	3	.....	.....	.....	.....	.....	.....	.....	1.82	.....	1.05	T.	5	11	9	11	w.	E. S. Wilton.
Ovando	....do	4,207	12	57.6	− 0.3	85	14†	30	17	49	3.69	+ 2.75	0.73	0	14	0	30	1	w.	S. B. Muchmore.
Philipsburg	Granite	5,275	8	57.5m	.....	90m	7	25m	30	51m	2.34	.....	0.78	0	8	8m	0m	10m	sw.	G. T. Bramble.
Plains	Sanders	2,475	13	62.0	− 1.0	89	23	31	30	41	1.93	+ 1.00	0.70	0	9	11	0	20	sw.	M. H. Pierce.
Pleasant Valley	Flathead	3,500	4	55.2	.....	85	23†	25	13	56	2.59	.....	0.75	0	14	10	5	16	w.	A. D. Stillman.
Polson	....do	2,920	4	63.7	.....	90	24	37	30	36	2.47	.....	0.74	0	6	.....	.....	.....	.....	F. P. Brown.
St. Ignatius	Missoula	2,700	6	61.9	.....	89	8†	36	30	47	2.83	.....	0.49	0	9	10	18	2	nw.	U. S. Reclamation Service.
Saltese	....do	3,600	7	.....	.....	.....	.....	.....	.....	.....	1.89	.....	1.25	0	3	22	0	9	w.	E. K. Tarbox.
Stevensville	Ravalli	.....	.....	61.7	.....	89	23†	30	30	45	1.10	.....	0.20	0	9	17	5	9	sw.	University Orchard Co.
Thompson Falls	Sanders	2,462	.....	62.6	.....	92	23	33	30	51	1.00	.....	0.56	0	5	15	8	8	w.	U. S. Forest Service.
Willow Glen Stock F'm	Deer Lodge	5,064	1	56.8	.....	87	23	28	28	44	1.20	.....	0.40	0	5	9	9	13	ne.	J. E. Luce.
Wyoming.																				
Afton	Uinta	6,200	8	.....	.....	89	26	.....	.....	.....	2.12	+ 0.82	0.52	0	10	13	6	12	.....	A. V. Call.
Alta	....do	7,000	2	54.8	.....	82	27	26	30	46	3.38	.....	0.73	0	12	14	8	9	sw.	Mrs. Lucy Brown.
Bechler River	Yellowstone Park	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.50	.....	1.20	0	7	11	13	7	nw.	U. S. Army.
Bedford	Uinta	5,900	12	55.5	− 3.1	83	26	20	30†	46	2.05	+ 0.65	0.51	0	9	21	4	6	w.	C. G. Heiner.
Moran	....do	.....	.....	53.4	.....	82	22	30	30	45	2.73	.....	0.71	0	10	9	10	12	.....	U. S. Reclamation Service.
Snake River	Yellowstone Park	7,000	6	54.6	.....	81	9	29	30	47	3.75	.....	0.98	0	13	15	4	12	w.	U. S. Army.
Nevada.																				
San Jacinto	Elko	.....	7	.....	.....	91	24	.....	.....	.....	0.05	.....	0.05	0	1	26	2	3	n.	F. M. Marchant.
Utah.																				
Standrod	Boxelder	.....	.....	62.9	.....	86	24†	35	30	33	2.19	.....	0.91	0	8	16	12	3	sw.	T. B. Jones.
Idaho.																				
Albion	Cassia	4,650	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Bocock.
Almo	....do	.....	3	.....	.....	.....	.....	.....	.....	.....	1.20	.....	0.45	0	5	17	3	11	.....	Wm. D. Cahoon.
American Falls	Oneida	4,341	21	63.8	− 4.5	94	24†	30e	30	54e	1.90	+ 1.39	0.98	0	6	24	6	1	ne.	Geo. Stoll.
Arrowrock	Boise	3,100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Blackfoot	Bingham	4,503	16	60.5	− 5.7	91	24	35	13†	50	1.62	+ 0.89	0.73	0	6	15	14	2	sw.	E. A. Dowd.
Blackfoot Dam	Bannock	6,200	3	58.4	.....	85	26	31	30†	44	2.35	.....	0.85	0	7	16	5	10	s.	S. C. Waddell.
Bogus Creek	Boise	4,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. P. Ingraham.
Boise	Ada	2,739	27	68.1	− 3.7	96	8	40	30	37	0.07	− 0.09	0.04	0	3	14	9	8	nw.	U. S. Weather Bureau.
Bonners Ferry	Bonner	1,850	5	59.0	.....	89	24	32	30	45	2.44	.....	0.90	0	8	16	9	6	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800	3	.....	.....	.....	.....	.....	.....	.....	0.62	.....	0.18	0	7	23	5	3	.....	Patrick Moriarty.
Buhl	Twin Falls	3,800	5	67.6	.....	98	26	37	30	44	0.08	.....	0.08	0	1	18	13	0	w.	S. C. Orr.
Caldwell	Canyon	2,372	8	66.2	.....	95	8†	33	30	47	0.21	.....	0.12	0	4	11	11	9	w.	Wm. J. Boone.
Caldwell Experiment Station.	....do	.....	.....	66.8	.....	98	8	35	30	49	0.23	.....	0.13	0	3	.....	.....	.....	.....	C. B. Hampson.
Camas	Fremont	4,815	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Ednah Faulkner.
Cambridge	Washington	2,651	16	65.0e	− 5.3	98e	23†	30e	30	56e	0.55	+ 0.14	0.25	0	3	.....	.....	.....	.....	Chas. H. Shepherd.
Cedar Creek Dam	Twin Falls	5,220	2	.....	.....	.....	.....	.....	.....	.....	0.56	.....	0.16	0	5	14	13	4	ne.	Robert Hoffman.
Chesterfield	Bannock	5,424	16	59.2	− 0.8	99	11	28	28	69	3.57	+ 2.43	1.45	0	6	20	5	6	nw.	Chas. S. West.
Clarks Fork	Bonner	2,084	.....	59.7	.....	86	23†	34	11	42	3.98	.....	1.95	0	11	13	11	7	.....	Wm. Potter.
Clyde	Custer	6,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. L. Sutcliffe.
Council	Adams	3,059	.....	67.2e	.....	94e	23†	33e	31	46e	0.39	.....	0.31	0	2	.....	.....	.....	.....	F. L. Featherston.
Culdesac	Nez Perce	1,520	4	64.2e	.....	97e	5†	35	30	55e	2.32	.....	0.68	0	10	13	6	12	.....	Mrs. B. B. Caldwell.
Deary	Latah	2,854	.....	59.3	.....	94	8	32	30	51	2.87	.....	1.40	0	8	10	11	10	sw.	W. J. Davis.
Dent	Clearwater	1,350	6	66.3	.....	98	23†	43	31	54	2.45	.....	1.13	0	8	10	14	7	.....	Emil Schuessler.
Driggs	Fremont	6,097	5	56.0	.....	81	26	31	20	41	2.10	.....	0.60	0	9	9	5	17	sw.	W. H. Durrant.
Emmett	Canyon	2,350	5	69.1	.....	98	24†	31	30	45	0.85	.....	0.37	0	3	15	16	0	s.	U. S. Forest Service.
Forney	Lemhi	6,000	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. B. Merritt.
Garden Valley	Boise	3,600	4	.....	.....	.....	.....	.....	.....	.....	1.29	.....	1.02	0	4	.....	.....	.....	.....	Mrs. Gertrude M. Ross.
Garnet	Elmore	2,575	13	72.6e	− 3.8	105j	24	42	29	47j	.....	.....	.....	0	.....	22	5	4	.....	A. A. Kenison.
Glenns Ferry	....do	2,569	4	70.0	.....	105	24	34	30	59	0.62	.....	0.42	0	2	22	4	5	.....	I. E. Perkins.
Gooding	Lincoln	3,572	3	66.9	.....	98	24†	30	30	50	T.	.....	T.	0	0	19	10	2	w.	John Krall, jr.
Grand Forks	Shoshone	3,000	3	56.6	.....	90	8	28	30	56	2.75	.....	1.73	0	10	13	4	14	sw.	F. W. Beier.
Grandview	Owyhee	.....	3	68.1	.....	102	8	33	30	58	0.15	.....	0.10	0	2	26	3	2	nw.	N. G. Massey.
Grimes Pass	Boise	5,200	3	.....	.....	.....	.....	.....	.....	.....	0.65	.....	0.36	0	5	.....	.....	.....	.....	Jos. M. Clarke.
Guffey	Owyhee	2,381	4	72.4	.....	101	8	40	30	45	1.07	.....	0.53	0	5	26	4	1	e.	Fred Perry.
Hailey	Blaine	5,347	10	62.8h	− 4.1	90e	26	31	30	44e	1.86	+ 1.57	1.50	0	4	5	22	4	sw.	U. S. Forest Service.
Hollister	Twin Falls	4,550	.....	65.2	.....	96	25	31	30	46	0.81	.....	0.25	0	8	12	19	0	nw.	J. W. Bouten.
Hotspring	Owyhee	2,590	7	70.4	.....	99	24	40	30	43	0.37	.....	0.25	0	3	17	11	3	.....	J. M. Waterhouse.
Idaho Falls	Bonneville	4,742	17	62.3	− 4.2	89	24	35	30	44	2.28	+ 1.47	0.95	0	9	12	12	7	ne.	Dr. T. M. Bridges.
Indian Valley	Adams	2,999	3	.....	.....	.....	.....	.....	.....	.....	0.34	.....	0.33	0	2	23	4	4	s.	A. M. Henke.
Irwin	Bonneville	6,500	3	58.8	.....	88	13†	32	15†	50	3.22	.....	1.00	0	7	14	4	13	e.	Mrs. Eva Buckland.
Kellogg	Shoshone	2,305	8	60.5	.....	91	8†	34	30	50	2.29	.....	0.80	0	11	14	1	16	.....	W. McM. Huff.
Kirkham	Boise	4,200	3	.....	.....	.....	.....	.....	.....	.....	1.45	.....	0.90	0	5	14	11	6	w.	Mrs. Josie B. West.
Kooskia	Idaho	1,261	4	66.8	.....	102	8	40	13	57	1.52	.....	0.56	0	10	10	13	8	.....	U. S. Forest Service.
Lakeview	Bonner	2,250	15	60.4	− 2.8	89	25	40	29†	42	3.80	+ 2.64	1.64	0	13	14	2	15	sw.	E. D. Faust.
Landore	Adams	5,300	8	55.2	.....	84	24	27	30	41	1.65	.....	0.55	0	7	17	12	2	.....	Mrs. Emma L. Brown.
Leadore	Lemhi	.....	.....	57.2	.....	89	26	27	30	54	1.33	.....	0.60	0	11	17	9	5	e.	Jos. Balluff.
Lewiston	Nez Perce	757	12	68.6	− 4.9	98	23	42	30	42	1.25	+ 0.88	0.51	0	9	14	4	13	e.	U. S. Weather Bureau.
Little Camas	Elmore	5,000	3	.....	.....	.....	.....	.....	.....	.....	0.20	.....	0.10	0	3	5	16	10	w.	Solon McCoy.
Loon Creek	Custer	6,000	3	55.4	.....	88	26	18	30	55	1.42	.....	0.63	0	8	9	11	11	sw.	Mrs. Mary Williams.
Mackay	....do	5,897	5	60.6f	.....	88f	26	34f	17†	43f	1.51	.....	0.75	0	8	20	6	5	nw.	U. S. Forest Service.

TABLE 1.—*Climatological data for August, 1912. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Idaho—Continued.																				
Meridian	Ada	2,657	2	67.4	.....	97	8†	35	30	47	0.09	.....	0.09	0	1	16	12	3	nw.	A. W. Garrett.
Mesa	Adams	3,275	2	67.4[b]	.....	96[b]	23	35[b]	30	46[b]	.....	.....	.....	0	.....	.....	.....	.....	nw.	I. S. Carter.
Middle Fork	Idaho	1,397	2	67.0	.....	95	23	41	30	43	1.27	.....	0.42	0	7	16	0	15	.....	Jos. McGhee.
Milner	Twin Falls	4,110	8	67.0	.....	98	26	35	30	47	T.	.....	T.	0	0	18	10	3	w.	James K. Young.
Moscow	Latah	2,748	20	62.2	− 3.0	91	9†	37	30	51	2.10	+ 1.24	1.05	0	12	9	11	11	nw.	University of Idaho.
Mountainhome	Elmore	3,150	7	66.1	.....	98	23	26	30	56	0.08	.....	0.08	0	1	21	10	0	.....	Mrs. Ellen Manion.
Murtaugh	Twin Falls	.....	6	63.0[b]	.....	91[b]	24†	37[c]	30	48[b]	0.23	.....	0.23	0	1	.....	.....	.....	w.	J. E. Steinour.
New Meadows	Adams	3,950	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. G. Dunn.
Nezperce	Lewis	3,082	3	60.0	.....	91	8	34	17†	45	2.16	.....	0.57	0	8	19	2	10	.....	P. Mitchell.
Oakley	Cassia	4,700	19	65.5	− 3.7	95	26	35	4†	43	0.32	− 0.26	0.20	0	3	11	18	2	.....	John Adams.
O'Hara Bar	Idaho	1,557	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. D. Agnew.
Orofino	Clearwater	1,027	8	66.2	.....	98	1†	37	30	50	2.43	.....	0.95	0	9	8	19	4	.....	Geo. Alteneder.
Payette	Canyon	2,159	22	67.0	− 5.2	98	15	32	30	51	0.26	+ 0.05	0.18	0	3	12	7	12	n.	E. F. Allen.
Pebble	Bannock	5,277	3	61.4	.....	89	24†	31	30	46	2.22	.....	0.87	0	7	12	13	6	sw.	Alexander McQueen.
Pierson	Custer	7,000	2	55.8	.....	88	1	10	30	58	0.42	.....	0.23	0	2	23	3	5	s.	D. P. Clarke.
Pleasant Valley	Ada	3,000	5	66.1	.....	99	24	30	30	50	0.09	.....	0.04	0	4	28	1	2	nw.	C. E. Friedrich.
Pocatello	Bannock	4,483	13	65.8	− 4.7	92	24	40	30	41	1.19	+ 0.63	0.40	0	7	15	11	5	se.	U. S. Weather Bureau.
Pocatello Nursery	....do	5,396	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Fannie E. Say.
Poplar	Bonneville	5,500	2	63.4	.....	91	14	36	30	44	1.67	.....	0.60	0	6	14	15	2	sw.	C. M. Lawrence.
Porthill	Bonner	1,665	23	61.2	− 2.3	89	24	37	30	41	1.23	+ 0.23	0.39	0	8	16	6	9	.....	H. A. French.
Priest River Experiment Station:																				
No. 1	....do	2,500	....	58.3	.....	80	8†	32	30	33	2.96	.....	1.04	0	14	11	6	14	s.	D. R. Brewster.
No. 2	....do	2,500	....	60.2	.....	88	8†	32	30	44	2.54	.....	1.00	0	13	11	6	14	sw.	Do.
No. 3	....do	.....	....	57.8	.....	88	23†	31	30	51	2.68	.....	0.99	0	13	11	6	14	se.	Do.
Pyle Creek	Boise	3,100	3	.....	.....	.....	.....	.....	.....	.....	1.46	.....	0.90	0	7	23	4	4	w.	P. V. Smith.
Richfield	Lincoln	4,306	3	64.8	.....	95	26	25	30	45	0.41	.....	0.23	0	3	22	9	0	sw.	Idaho Irrigation Co.
Roseberry	Boise	4,872	1	54.3	.....	86	23†	17	30	53	0.44	.....	0.30	0	3	13	16	2	sw.	J. L. Bumgarner.
Roseworth	Twin Falls	4,650	....	.....	.....	.....	.....	.....	.....	.....	0.13	.....	0.13	0	1	7	11	13	nw.	D. B. Hartwell.
Rupert	Lincoln	4,204	6	64.4	.....	94	26	32	30	51	0.77	.....	0.41	0	5	20	7	4	sw.	Will Parry.
St. Anthony	Fremont	4,968	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Heber C. Sharp.
St. Maries	Kootenai	2,263	15	62.4	− 1.7	90	8	35	30	41	2.20	+ 1.23	1.08	0	11	8	12	11	w.	J. S. Turnbull.
Salmon	Lemhi	4,040	7	61.2	.....	93	26	27	30	51	0.35	.....	0.15	0	5	23	8	0	nw.	B. C. d'Easum.
Sandpoint	Bonner	2,086	2	58.6	.....	89	24	32	30	48	2.62	.....	1.22	0	12	13	5	13	s.	J. H. Edgerton.
Sheep Hill	Boise	5,000	3	.....	.....	.....	.....	.....	.....	.....	0.06	.....	0.02	0	3	.....	.....	.....	.....	C. M. Gardner.
Shoshone	Lincoln	3,968	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Zell Truman.
Silver City	Owyhee	6,280	5	.....	.....	.....	.....	.....	.....	.....	0.53	.....	0.34	0	5	19	6	6	s.	A. D. Bradfield.
Smith Prairie	Elmore	5,200	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. W. Newell.
Soldier Creek	Blaine	5,755	2	59.0[d]	.....	86[d]	24	31[d]	30	43[d]	0.74	.....	0.72	0	2	.....	.....	.....	nw.	J. E. Minear.
Spirit Lake	Kootenai	2,560	2	61.0	.....	90	22	34	31	47	2.79	.....	1.65	0	10	18	3	10	ne.	M. C. Krause.
Springfield	Bingham	4,420	4	64.1	.....	96	23	35	31	51	1.75	.....	0.68	0	4	16	11	4	sw.	Mrs. W. A. Edwards.
Sugar	Fremont	4,892	5	59.6	.....	89	27	35	30	48	1.66	.....	0.50	0	9	15	7	9	sw.	Utah-Idaho Sugar Co.
Sunnyside	Elmore	3,500	3	70.4	.....	100	25†	33	30	54	T.	.....	T.	0	0	.....	.....	.....	nw.	Col. M. W. Wood.
Tripod Mountain	Boise	4,300	3	.....	.....	.....	.....	.....	.....	.....	0.88	.....	0.39	0	3	22	3	6	.....	Mrs. Verna Paddock.
Twin Falls	Twin Falls	3,825	7	65.2	.....	98	24	34	30	53	0.16	.....	0.08	0	3	13	18	0	sw.	J. A. Waters.
Vernon	Fremont	5,050	14	58.6	− 4.7	87	26	28	30	47	2.30	+ 1.71	0.60	0	10	14	10	7	sw.	A. M. Slatery.
Wallace	Shoshone	2,728	5	59.8	.....	92	8	33	30	47	2.20	.....	1.39	0	8	.....	.....	.....	w.	U. S. Weather Bureau.
Weiser	Washington	2,114	....	70.2	.....	102	23	32	30	51	0.89	.....	0.45	0	3	14	6	11	se.	J. W. Lapish.
Wendell	Lincoln	3,400	4	68.6	.....	100	24†	31	30	50	T.	.....	T.	0	0	21	10	0	w.	Chas. L. Dingler.
Washington.																				
Aberdeen	Chehalis	162	21	60.0	− 1.0	90	21	39	27	37	3.96	+ 2.90	2.03	0	6	6	22	3	w.	C. S. Weatherwax.
Anacortes	Skagit	60	18	60.4	.....	80	7	43	13†	33	3.17	+ 2.30	1.22	0	6	17	12	2	.....	Douglass Allmond.
Baker	....do	200	6	63.4	.....	90	7	43	29	38	4.40	.....	1.02	0	10	13	4	14	.....	R. M. White.
Bellingham	Whatcom	60	17	61.8	+ 1.2	82	22	40	28	31	4.47	+ 3.38	1.30	0	6	19	7	5	.....	S. B. Mayhew.
Bellingham (near)	....do	107	....	60.0[a]	.....	79	21†	39[a]	28	31[a]	4.95	.....	1.29	0	7	19	5	7	.....	U. S. Bureau of Plant Ind.
Blaine	....do	57	15	59.4	− 0.6	78	7	40	28	33	4.66	+ 3.83	1.38	0	10	8	16	7	se.	J. W. Sheets.
Blewett	Chelan	2,200	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bremerton	Kitsap	30	....	.....	.....	.....	.....	.....	.....	.....	1.66	.....	0.34	0	10	.....	.....	.....	.....	U. S. Navy Yard.
Brewster	Okanogan	1,620	2	66.6	.....	94	23	44	28†	34	1.99	.....	1.67	0	7	13	13	5	sw.	Mrs. H. F. Bertram.
Bumping Lake	Yakima	3,400	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cedar River	King	535	5	.....	.....	.....	.....	.....	.....	.....	5.11	.....	1.52	0	13	13	4	14	.....	Geo. Landsburg.
Centralia	Lewis	212	19	62.6	− 1.4	90	22	40	27†	38	6.34	+ 5.53	2.50	0	12	10	13	8	s.	I. S. Turner.
Cheney	Spokane	2,351	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cle Elum	Kittitas	1,930	13	60.0	− 2.2	96	22	32	14	54	1.69	+ 1.31	0.43	0	6	17	9	5	sw.	J. A. Balmer.
Clearbrook	Whatcom	140	9	59.8	.....	86	7	34	28†	42	7.81	.....	3.00	0	10	8	12	11	w.	George Gibbs.
Colfax	Whitman	2,300	23	60.2	− 5.2	95	8†	33	24	58	2.32	+ 1.71	1.24	0	6	19	4	8	w.	I. B. Doolittle.
Colville	Stevens	1,635	12	62.6	− 3.1	96	24	39	13†	51	1.34	+ 0.58	0.51	0	7	12	6	13	sw.	W. L. Sax.
Colville Forest Station	....do	.....	....	60.0	.....	88	23	32	29	44	.....	.....	.....	.....	.....	8	3	20	s.	U. S. Forest Service.
Conconully	Okanogan	2,300	12	62.3	− 2.3	89	23	36	29	39	2.06	+ 1.42	1.15	0	9	10	12	9	.....	Wm. Baines.
Cowiche	Yakima	1,874	12	66.4[b]	.....	95[b]	23	42[b]	28†	32	0.52	.....	0.28	0	4	13[b]	12[b]	4[b]	nw.	U. S. Reclamation Service.
Crescent	Lincoln	2,250	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Darrington	Snohomish	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Davenport	Lincoln	2,450	3	62.2	.....	93	8	36	30	43	1.64	.....	0.86	0	7	14[a]	7[a]	9[a]	.....	J. L. Thayer.
Dayton	Columbia	1,700	26	65.4	− 3.0	94	23	39	30	45	3.04	+ 2.55	1.54	0	9	13	10	8	sw.	W. W. Hendron.
Deer Park	Spokane	2,050	3	60.0	.....	90	22†	30	30	50	2.45	.....	1.21	0	11	22	4	5	sw.	Robt. Allison, jr.
Detroit	Mason	30	4	63.4	.....	91	7	41	29	40	3.63	.....	1.00	0	12	13	11	7	s.	Walter O. Eckert.
Dixie	Walla Walla	5,000	3	.....	.....	.....	.....	.....	.....	.....	4.56	.....	2.00	0	10	15	2	14	sw.	T. Z. Andrews.
Douglas Lake	Skagit	.....	....	.....	.....	.....	.....	.....	.....	.....	3.39	.....	1.54	0	8	.....	.....	.....	.....	Michael Pecovich.
Dryden	Chelan	960	2	.....	.....	.....	.....	.....	.....	.....	0.94	.....	0.43	0	6	20	9	2	nw.	Wenatchee Gas & Elec. Co.
Duckabush	Jefferson	380	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ellensburg	Kittitas	1,571	24	63.8	− 1.9	95	23	37	28	47	0.95	+ 0.67	0.48	0	5	18	6	7	nw.	R. Lee Barnes.
Ephrata	Grant	1,265	9	.....	.....	.....	.....	.....	.....	.....	2.20	.....	1.10	0	3	.....	.....	.....	.....	T. J. Cook.
Forks	Clallam	480	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Simcoe	Yakima	1,427	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gerome	Stevens	2,900	3	63.4	.....	92	22	34	27	43	1.98	.....	1.09	0	6	10	14	7	.....	J. H. C. Scurlock.
Goat Lake	Snohomish	2,900	3	.....	.....	.....	.....	.....	.....	.....	5.45	.....	1.05	0	8	.....	.....	.....	.....	C. M. Mackintosh.
Gold Basin	....do	1,360	....	59.7	.....	88	7	41	29	43	6.43	.....	1.12	0	10	14	5	11	sw.	U. S. Forest Service.
Gold Creek	Yakima	2,600	3	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.50	0	3	10	12	9	w.	J. W. Anderson.
Goldendale	Klickitat	1,600	6	64.1	.....	94	22	39	28	46	1.68	+ 1.40	0.70	0	5	4	23	4	w.	Klickitat Co. Abstract Co.
Granite Falls	Snohomish	397	9	.....	.....	.....	.....	.....	.....	.....	6.93	.....	1.99	0	13	9[b]	9[b]	11[b]	nw.	C. H. Cleaver.
Grays River	Wahkiakum	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Guler	Klickitat	2,200	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hanford	Benton	.....	....	70.5	.....	106	23	45	28†	49	0.93	.....	0.34	0	6	15	8	8	sw.	Francis Lee Bash.
Hatton	Adams	1,100	7	66.4	.....	99	23	35	30	47	1.24	.....	0.42	0	7	12	8	11	sw.	Dr. A. V. Marion.
Huntsville	Columbia	1,400	4	.....	.....	.....	.....	.....	.....	.....	2.96	.....	1.40	0	6	.....	.....	.....	.....	Mrs. S. J. Hill.
Irene Mountain	Okanogan	3,015	3	.....	.....	.....	.....	.....	.....	.....	2.24	.....	1.00	0	7	9	9	13	sw.	Mrs. Manda S. Shain.
Kennewick	Benton	368	17	71.6	− 3.6	103	23	45	24	57	1.26	+ 1.05	0.57	0	8	16	9	6	.....	R. E. Reed.
Kent	King	53	....	62.3	.....	87	22	39	28	38	2.52	.....	0.80	0	10	11	6	14	n.	A. O. Jeffries.

TABLE 1.—*Climatological data for August, 1912. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Washington—Contd.																				
Kettle Falls	Stevens	1,265	3	65.0	.....	95	23	38	30	46	1.90	.....	0.65	0	9	14	11	6	.....	Harry H. Cole.
Kiona	Benton	430	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kosmos	Lewis	775	6	62.2	.....	95	7	39	28	49	7.18	.....	2.06	0	11	9	15	7	ne.	J. A. Ulsh.
La Center	Clarke	250	15	60.2	− 4.3	88	7†	40	28	43	5.42	+ 4.28	1.49	0	12	14	8	9	sw.	Joseph Brothers.
La Crosse	Whitman	1,400	3	63.6	.....	98	23	34	30	51	1.78	.....	0.97	0	9	17	6	8	w.	M. E. Schreck.
Lake Cle Elum	Kittitas	2,171	3	.....	.....	.....	.....	.....	.....	.....	2.40	.....	0.65	0	9	8	5	18	nw.	U. S. Reclamation Service.
Lake Kachess	do	2,335	4	59.3	.....	89	22†	35	21	50	3.62	.....	0.96	0	7	12a	5a	13a	w.	Do.
Lake Keechelus	do	2,479	4	.....	.....	.....	.....	.....	.....	.....	4.84	.....	1.20	0	9	11	7	13	w.	Do.
Lakeside	Chelan	1,116	21	68.8	− 3.7	94	22†	47	29	37	1.04	+ 0.67	0.50	0	7	7	18	6	w.	W. H. Van Meter.
Laurel	Klickitat	1,900	3	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.84	0	7	12	15	4	w.	Mrs. Minnie E. Strout.
Laurier	Ferry	1,644	1	63.4	.....	92	22†	39	30	47	1.70	.....	0.43	0	9	5	10	16	s.	Mrs. J. S. Myers.
Lone Tree	Chehalis	14	3	60.0	.....	83	21	50	2	21	4.50	.....	2.04	0	11	9	14	8	nw.	U. S. Engineer Corps.
Longmires Springs	Pierce	2,800	3	.....	.....	.....	.....	.....	.....	.....	5.40	.....	1.50	0	6	.....	.....	.....	.....	National Park Ranger.
Lost Creek	Okanogan	3,125	3	.....	.....	.....	.....	.....	.....	.....	0.18	.....	0.07	0	7	11	12	8	se.	P. H. Leese.
McConihe	Grant	1,072	....	68.0	.....	99	23	40	28	44	1.74	.....	0.65	0	6	18	4	9	se.	Paul M. McConihe.
McCumbers Ranch	Yakima	2,182	3	.....	.....	.....	.....	.....	.....	.....	2.10	.....	0.90	0	7	13	15	3	sw.	Mary McCumber.
Moses Lake	Grant	.....	.....	66.9	.....	98	22	43	26	44	0.90	.....	0.58	0	4	20	3	8	sw.	H. W. Flemming.
Mottinger	Benton	307	12	71.3	− 3.5	99	22†	48	30	39	1.67	+ 1.45	0.48	0	6	18	6	7	w.	G. H. Mottinger.
Mount Pleasant	Clallam	500	....	58.4	.....	83	22	40	28†	26	1.93	.....	0.71	0	10	14	7	10	.....	Wm. M. Dorr.
Moxee	Yakima	1,000	20	67.2b	− 2.6	102a	23	36b	28	50	0.49	+ 0.29	0.27	0	7	15	9	7	nw.	Henry B. Scudder.
Newport	Stevens	2,400	2	59.2	.....	90	23	33	30	47	2.81	.....	1.07	0	12	12	9	10	e.	Chas. M. Talmadge.
North Head	Pacific	211	10	58.0	+ 0.1	73	21	52	30	18	3.20	+ 2.64	1.52	0	11	8	12	11	nw.	U. S. Weather Bureau.
Northport	Stevens	1,350	13	63.3	.....	92	8	40	29	42	2.22	+ 1.00	0.70	0	11	13	11	7	.....	W. F. Case.
North Yakima	Yakima	1,070	3	67.3	.....	95	23	42	28†	38	0.50	.....	0.23	0	6	15	8	8	nw.	Albert Bender.
Nutland	Klickitat	.....	3	69.5	.....	100	23	45	28†	37	0.56	.....	0.32	0	3	.....	.....	.....	.....	Ruth Shepard.
Odessa	Lincoln	1,540	9	64.9	.....	96	23	38	30	48	1.73	.....	0.65	0	8	11	13	7	sw.	H. W. Rieke.
Olga	San Juan	50	22	58.6	− 0.6	76	7†	44	28†	26	3.62	+ 2.73	1.34	0	6	12	13	6	nw.	Cecil S. Willis.
Olympia	Thurston	200	34	62.2	− 0.5	91	22	37	29†	42	3.10	+ 2.44	0.98	0	11	15	6	10	n.	M. O'Connor.
Omak	Okanogan	850	3	67.0	.....	97	23	39	29	50	1.48	.....	1.06	0	7	14	10	7	s.	Saint John Umbrite.
Oroville	do	922	3	67.2	.....	97	22	40	29	44	1.22	.....	0.75	0	4	14	6	11	s.	M. C. Jackman.
Peola	Garfield	5,000	3	.....	.....	.....	.....	.....	.....	.....	2.73	.....	1.13	0	8	20	4	7	nw.	Samuel Gruell, Sr.
Pomeroy	do	1,500	20	65.8	− 5.7	99	8	40	30	44	1.76	+ 1.24	0.96	0	7	11	13	7	w.	Peter McClung.
Port Crescent	Clallam	259	17	54.6	− 1.6	76	21	36	28	29	2.59	+ 1.89	0.99	0	10	6	16	9	nw.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	22	60.0	− 0.9	80	7†	46	28	29	2.29	+ 1.49	0.74	0	12	13	1	17	nw.	F. Plummer.
Prosser	Benton	650	....	68.6	.....	103	23	41	28	48	.....	.....	.....	0	....	21	2	8	w.	E. L. Capps.
Pullman	Whitman	2,550	20	62.8	− 4.0	93	8†	37	30	39	2.14	+ 1.41	1.23	0	10	19	4	8	sw.	Henry Holtz.
Queets River	Chehalis	16	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quiniault	do	300	5	63.0	.....	95	7†	38	28†	45	7.07	.....	2.10	0	10	12	15	4	w.	A. V. Higley.
Republic	Ferry	2,628	12	61.5	− 1.7	91	23	32	29	49	2.17	.....	0.80	0	8	14	4	13	s.	Geo. B. Stocking.
Rex Creek	Chelan	1,135	4	63.6a	.....	87a	22	40a	30	28	1.31	.....	0.66	0	5	9a	5a	16a	nw.	Jas. W. Nicol.
Ritzville	Adams	1,825	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Robertsville	Klickitat	.....	....	59.0	.....	95	23	29	28	47	1.53	.....	0.84	0	6	8	22	1	.....	R. R. Couger.
Rock Lake	Whitman	1,910	6	63.6	.....	93	7†	35	30	46	2.16	.....	0.54	0	6	13	5	13	sw.	P. M. Ramsey.
Rosalia	do	2,425	20	62.2	−2.9	91	8	39	19†	41	2.10	+ 1.38	0.81	0	10	12	11	8	sw.	Hans Mumm.
Russells Ranch	Yakima	2,870	3	.....	.....	.....	.....	.....	.....	.....	2.27	.....	0.90	0	7	15	11	5	w.	Mrs. Adelia Russell.
Seattle	King	123	20	62.2	− 0.9	83	22	48	28	25	2.49	+ 2.00	0.80	0	11	7	9	15	s.	U. S. Weather Bureau.
Sedro Woolley	Skagit	38	15	61.0	− 0.5	84	7†	40	28	35	5.74	+ 4.17	1.55	0	10	14	7	10	.....	Mrs. H. L. Devin.
Sixprong	Klickitat	1,240	5	70.0	.....	101	23	40	30	47	0.54	.....	0.36	0	3	24	2	5	sw.	C. E. Comstock.
Skagit Power Dam	Whatcom	510	2	63.7	.....	96	7	42	29	44	3.09	.....	1.02	0	11	15	4	12	.....	C. B. Emery.
Snohomish	Snohomish	100	18	62.8	+ 0.5	88	21	38	26	43	5.00	+ 3.91	1.50	0	8	11	12	8	nw.	James Bylling.
Snoqualmie Falls	King	667	12	63.5	.....	89	7†	47	7†	42	3.81	+ 2.29	0.91	0	12	15	0	16	.....	O. N. Wiswell.
Snoqualmie Pass	do	3,000	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Snyders Ranch	Okanogan	2,200	3	59.6	.....	92	22	27	29	52	1.46	.....	1.04	0	4	9	17	5	sw.	Geo. M. Snyder.
South Bend	Pacific	.....	17	61.6	+ 0.1	88	7	44	29	36	6.51	+ 5.04	2.14	0	13	16	10	5	w.	Mrs. W. E. Buckingham.
Spokane	Spokane	1,943	31	64.2	− 3.7	92	23	46	30	37	2.06	+ 1.58	1.24	0	10	9	10	12	sw.	U. S. Weather Bureau.
State University	King	170	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stokes Ranch	Okanogan	2,670	3	.....	.....	.....	.....	.....	.....	.....	1.81	.....	1.30	0	7	12	14	5	sw.	Chas. W. Gunn.
Sumner	Pierce	77	4	61.6	.....	87	21	37	28	40	3.22	.....	1.09	0	11	13	4	14	n.	H. E. Thompson.
Sunnyside	Yakima	740	17	66.9	− 3.1	100	23	39	28	47	0.74	+ 0.52	0.25	0	8	15	14	2	w.	U. S. Reclamation Service.
Tacoma	Pierce	213	26	61.8	− 1.2	85	21	45	28	32	3.44	+ 2.74	1.33	0	8	6	12	13	n.	U. S. Weather Bureau.
Tatoosh Island	Clallam	85	27	55.6	+ 0.3	73	21	47	28	21	4.33	+ 2.22	1.98	0	12	8	11	12	s.	Do.
Tieton	Yakima	2,000	3	61.1	.....	93	23	38	28	43	1.21	.....	0.61	0	6	14	7	10	w.	Clarence Clements.
Touchet	Walla Walla	556	5	66.8	.....	100	23	42	19†	53	1.31	.....	0.45	0	7	12	13	6	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500	3	.....	.....	.....	.....	.....	.....	.....	5.18	.....	1.85	0	6	14	9	8	sw.	R. H. King.
Trinidad	Douglas	900	8	70.2	.....	100	23	46	16	36	1.04	.....	0.34	0	5	23	1	7	nw.	J. C. Wheeler.
Vancouver	Clarke	100	37	65.2	− 1.0	91	7	48	28†	38	3.57	+ 2.96	0.78	0	11	14	6	11	nw.	A. A. Quarnberg.
Vashon Island	King	40	23	60.2	− 2.8	78	21†	44	28	26	2.54	+ 1.96	0 98	0	11	11	5	15	s.	Gertrude McClintock.
Wahluke	Grant	410	8	71.0	.....	100	23	47	28†	41	1.05	.....	0.32	0	7	11	10	10	.....	F. C. Koppen.
Wallace	Okanogan	4,000	3	.....	.....	.....	.....	.....	.....	.....	1.95	.....	0.96	0	10	9	17	5	s.	G. A. Wallace.
Walla Walla	Walla Walla	1,000	28	69.6	− 4.2	99	23	48	30	33	2.67	+ 2.22	1.03	0	8	16	7	8	sw.	U. S. Weather Bureau.
Washougal	Skamania	650	12	62.6	− 2.4	86	7†	45	2†	31	5.60	+ 4.55	1.70	0	10	17	4	10	w.	F. M. Grout.
Waterville	Douglas	2,624	22	62.0a	− 4.6	92a	22†	36	28	43a	1.08	+ 0.61	0.46	0	4	19	7	5	nw.	O. R. Hopewell.
Wenatchee	Chelan	.....	....	70.4	.....	103	23	45	29	45	0.79	.....	0.42	0	3	15	12	4	n.	A. A. Piper.
Wenatchee, near	do	1,169	13	64.6	− 3.1	93	23	44	28†	30	1.00	+ 0.66	0.29	0	6	15	8	8	w.	Geo. A. Pitcher.
White Salmon	Klickitat	325	....	67.0a	.....	101a	22	43a	28	43a	2.01	.....	1.02	0	6	16a	5a	9a	w.	C. W. J. Reckers.
Wilbur	Lincoln	2,203	13	60.5	− 3.4	91	23	34	29	50	3.00	+ 2.50	1.08	0	7	16	6	9	sw.	Rollin J. Reeves.
Wind River	Skamania	1,300	....	61.6	.....	98	21	36	28†	46	5.75	.....	2.42	0	6	9	9	13	sw.	U. S. Forest Service.
Winthrop	Okanogan	1,765	....	63.3	.....	94	22	37	28	48	1.56	.....	1.26	0	4	15	11	5	.....	Methow Trading Co.
Yacolt	Clarke	.....	....	.....	.....	.....	.....	.....	.....	.....	6.60	.....	1.75	0	8	15	2	14	sw.	C. R. Miller.
Yale	Cowlitz	375	5	63.0	.....	93	21	38	28	38	9.30	.....	2.79	0	13	11	5	15	sw.	J. A. Williams.
Zillah	Yakima	800	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.																				
Albany	Linn	212	30	65.1	− 0.8	92	21	44	29	41	2.93	+ 2.44	1.20	0	10	11	3	17	n.	F. M. French.
Ashland	Jackson	1,963	28	67.0	− 2.0	93	23	41	30	40	0.15	− 0.22	0.10	0	2	14	12	5	nw.	G. G. Eubanks.
Astoria	Clatsop	16	51	61.6	− 0.2	85	7	47	29	30	4.09	+ 3.03	1.36	0	10	15	10	6	sw.	Irving Club.
Austin	Grant	4,250	1	53.4	.....	89	23	20	30†	57	1.45	.....	0.42	0	8	13	4	14	w.	U. S. Forest Service.
Baker	Baker	3,466	22	59.9	− 5.0	88	24	31	30	40	1.69	+ 1.30	1.30	0	8	12	9	10	se.	U. S. Weather Bureau.
Bay City	Tillamook	14	18	59.8	+ 0.7	84	20	39	21	35	6.21	+ 4.74	1.78	0	10	14	4	13	nw.	John O. Bozorth.
Bend	Crook	3,629	7	60.2a	.....	94a	23	25a	29	52a	0.65	.....	0.29	0	4	25	6	0	sw.	Bend Bulletin.
Black Butte	Lane	1,200	11	59.4	− 4.0	88	21	36	28	39	1.40	+ 1.23	0.60	0	6	20	9	2	nw.	Wm. Harris.
Blalock	Gilliam	237	14	73.4	− 2.4	106	23	48a	28	39a	0.52	+ 0.40	0.30	0	2	10	10	11	w.	Geo. W. Long.
Brogan	Malheur	2,600	2	71.8	.....	100	24	40	30	44	0.46	.....	0.46	0	1	24	4	3	n.	A. B. Cox.
Buell	Polk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. V. D. Paul.
Burns	Harney	4,157	21	64.1	− 0.7	100	23	25	29	58	0.44	+ 0.30	0.44	0	1	25	5	1	.....	J. C. Welcome, jr.
Cascade Locks	Hood River	100	22	65.2	− 2.6	94	7	45	28	39	6.23	+ 5.38	2.60	0	8	18	0	13	w.	Val. W. Tomkins.
Cazadero	Clakamas	503	3	64.4	.....	93	21	44	3	38	3.25	.....	0.84	0	9	9	1	21	nw.	Alf. Drill.

TABLE 1.—*Climatological data for August, 1912. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Continued.																		
Cliff	Lake	4,300	5	57.4	.....	92	23	23	30	55	0.98	.....	0.30	0	8	7	19	5	nw.	John C. Green.
Condon	Gilliam	2,884	5																	C. H. Williams.
Corvallis	Benton	266	24	60.8	− 4.3	85	23	41	6†	41	2.18	+ 1.76	0.67	0	6	13	6	12	sw.	Oregon Agricultural College.
Crescent	Klamath	4,400	....	54.8	.....	91	23	22	30	59	0.61	.....	0.29	0	7	16	11	4	sw.	C. W. Long.
Dayville	Grant	2,200	18	62.4	− 4.6	92	23	34	30	48	2.33	+ 1.99	1.10	0	8	19	10	2	nw.	Dr. J. Campbell-Martin.
Deadwood	Lane	350	2	62.8	.....	86	21	46	2†	34	3.5	.....	1.36	0	7	12	12	7	w.	Jos. Slemmons.
Doraville	Columbia	600	10	60.4	− 1.5	86	7	42	28†	32	4.88	+ 4.11	1.35	0	13	15	4	12	nw.	Jos. Hackenberg.
Drain	Douglas	300	10	63.6	.....	94	21	38	29	40	1.31	.....	0.60	0	7	10	11	10	nw.	Ira Wimberly.
Echo	Umatilla	625	8	69.0	.....	102	23	42	31	45	1.42	.....	0.53	0	5	18	4	9	w.	R. B. Stanfield.
Ella	Morrow	830	8	69.4	.....	104	23	45	28†	46	0.82	+ 0.54	0.31	0	6	21	2	8	sw.	Carl F. Troedson.
Eugene	Lane	449	22	63.8	− 1.1	86	20	46	19	31	1.32	+ 0.70	0.41	0	5	15	5	11	sw.	University of Oregon.
Fairview	Coos	142	16																	Wm. Bettys.
Forest Grove	Washington	220	23																	Pacific University.
Gardiner	Douglas	72	23																	Hon. J. S. Gray.
Glendale	....do	1,441	8	65.8	.....	96	22	41	31	46	0.09	.....	0.06	0	2	20	11	0	nw.	B. J. Simpson.
Glenora	Tillamook	575	21	60.6	− 2.3	91	7	38	2	48	8.82	+ 7.67	2.95	0	9	11	3	17	nw.	Mrs. Jennie A. Reeher.
Gold Beach	Curry	40	11	58.6	.....	73	11	45	29	20	1.10	+ 0.87	0.50	0	3	16	14	1	n.	John W. Riley.
Grants Pass	Josephine	956	24	66.2	− 2.4	98	23	35	29	50	0.03	− 0.27	0.03	0	1	16	8	7	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	11	61.4	.....	98	23	31	30	50	0.88	.....	0.35	0	5	11	2	18	nw.	Agent, O.(—)W. R. & N. Co.
Gurdane	Umatilla	3,500	3	63.0	.....	90	24	32	30	28	0.15	.....	0.04	0	7	18	6	7	w.	Miss Belle Ely.
Headworks	Clackamas	719	10					43	17	....	6.59	+ 4.98	1.50	0	11	14	5	12	sw.	Portland Water Works.
Heppner	Morrow	1,950	22	63.0	− 5.1	94	23	39	31	40	1.14	+ 0.87	0.35	0	8	14	10	7	w.	Frank Gilliam.
Hermiston	Umatilla	451	5	68.7	.....	99	23	42[a]	30	46[a]	1.12	.....	0.29	0	6	21	4	6	.....	C. W. Kellogg.
Hermoso Rio	Crook	2,110	2	61.2	.....	96[b]	23	34[b]	29†	54	0.47	.....	0.33	0	4	18	4	9	w.	Carl T. Hubbard.
Hood River:																				
No. 1	Hood River	300	22																	H. L. Hasbrouck.
No. 2	....do	485	1	67.0	.....	99	22	44	28	42	2.07	.....	1.13	0	6	19	3	9	w.	W. H. Lawrence.
No. 3	....do	620	1	57.1	.....	100	7	38	28	50	1.73	.....	0.78	0	6	17	13	1	w.	U. A. Newman.
No. 4	....do	850	1	63.9	.....	96	22†	40	28	48	1.85	.....	0.86	0	6	17	10	4	nw.	Fordham B. Kimball.
Huntington	Baker	2,165	11			98	23†				1.47	+ 1.28	1.45	0	3	14	17	0	w.	Agent, O.(—)W. R. & N. Co.
Jacksonville	Jackson	1,640	24	66.8	− 2.9	94	23	40	29	41	0.14	− 0.30	0.07	0	2	21	6	4	.....	E. Britt.
Joseph	Wallowa	4,400	23	59.8	− 2.2	90	23	29	30	43	2.28	+ 1.53	0.75	0	9	7	12	12	s.	F. F. McCully.
Klamath Agency	Klamath	4,169	4								1.52	.....	1.02	0	2	18	10	3	nw.	N. D. Ginsbach.
Klamath Falls	....do	4,100	23	62.2	− 4.7	88	23	35	30	39	1.89	+ 1.64	1.34	0	4	19	8	4	nw.	Augusta J. Hayden.
La Grande	Union	2,784	24																	W. A. Worstell.
Lakeview	Lake	4,825	29																	Ralph C. Koozer.
McKenzie Bridge	Lane	1,400	11	63.0	0.0	97	21	34	30	51	3.87	+ 3.04	1.36	0	11	14	2	15	sw.	Geo. Frissell.
McMinnville	Yamhill	182	25	68.0	+ 2.5	93	21	41	2	43	2.66	+ 2.10	0.84	0	8	13	5	13	ne.	M. E. Pettit.
Marshfield	Coos	34	11	60.0	− 1.1	76	6†	41	29	28	1.64	.....	0.77	0	9	14	3	14	nw.	U. S. Weather Bureau.
Meadow Brook Ranch	Hood River	850	1																	John W. Palmer.
Medford	Jackson	1,425	2	67.8	.....	96	22†	40	29†	44	0.07	.....	0.04	0	2	18	7	6	nw.	U. S. Weather Bureau.
Merrill	Klamath	4,070	7	60.2	.....	90	23	29	16†	47	1.60	.....	1.40	0	3	23	5	3	.....	Mrs. W. L. Hensel.
Metolius	Crook	2,525	2	62.5	.....	93	23	34	29	37	0.64	.....	0.19	0	5	12	2	11	sw.	W. E. Lottman.
Mikkalo	Gilliam	1,400	6																	Frank Little.
Miramonte Farm	Clackamas	195	24	64.5	− 0.5	89	21	45	2†	37	3.73	+ 3.22	0.96	0	8	14	5	12	n.	G. Muecke.
Monroe	Benton	350	15	63.4	− 1.8	90	21	42	29	36	1.59	+ 0.99	0.68	0	7	16	4	11	nw.	L. A. Peek.
Mount Angel	Marion	485	26	64.8	− 2.7	87	7†	49	28	28	3.56	+ 3.05	0.75	0	7	15	3	13	n.	Dr. Urban Fischer.
Mount Hood [1]	Hood River	1,450	1	59.6	.....	92	23	36	28	44	2.40	.....	0.97	0	9	15	11	5	w.	Isaac Beal.
Musick	Douglas	5,000	3	55.6	.....	81	22	30	28	32	5.99	.....	1.85	0	9	16	1	14	s.	Alex. Lundberg.
Newport	Lincoln	69	25	58.6	− 1.1	79	29	45	29	34	5.66	+ 4.86	1.57	0	8	7	9	15	nw.	Wm. Mathews.
Odel	Hood River	1,000	1	65.6	.....	95	22†	42	28	38	1.81	.....	0.85	0	6	16	3	10	w.	T. A. Decker.
Ortley	Wasco	1,600	1	64.6	.....	95	22	37	2	40	1.30	.....	0.60	0	5	16	7	8	.....	L. D. Firebaugh.
Paisley	Lake	4,500	9																	E. C. Woodward.
Parkdale [1]	Hood River	1,650	2	61.6	.....	91	23	39	30	37	2.25	.....	1.02	0	7	19	7	5	nw.	S. G. Babson.
Pendleton	Umatilla	1,070	23	66.9	− 3.3	99	23	37	30	46	1.79	+ 1.41	0.60	0	8	19	5	7	w.	E. F. Averill.
Pilot Rock	....do	1,817	4	66.6	.....	99	23†	35	30	46	2.26	.....	0.73	0	8	22	0	9	nw.	John P. McManus.
Pompeii	Clackamas	3,879	17																	E. Coalman.
Portland	Multnomah	57	42	65.6	− 0.3	93	7	50	29	33	3.39	+ 2.74	0.83	0	11	12	4	15	nw.	U. S. Weather Bureau.
Port Orford	Curry	80	7																	J. D. Loucks.
Prairie City	Grant	3,425	1	62.1	.....	98	23	28	30	53	20.3	.....	0.84	0	9	17	7	7	nw.	A. M. F. Kirchheiner.
Prineville	Crook	2,864	16																	Geo. Summers.
Prospect	Jackson	2,800	6	62.8	.....	95	12	31	29	50	0.95	.....	0.42	0	5	11	13	7	sw.	E. G. Trumbo.
Ramsey	Wasco	1,350	11	61.0	.....	92	23	38	29	39	0.65	.....	0.23	0	6	18	4	9	w.	Mrs. Iva B. Collins.
Range	Grant	3,500	4	57.2	.....	92	23	25	30	50	1.45	.....	0.60	0	5	17	4	10	.....	Mrs. Emma Arbuckle.
Redmond	Crook			60.6	.....	95	23	30	29	46	0.34	.....	0.18	0	2	22	6	3	.....	John Tuck.
Richland	Baker	2,350	11	65.4	.....	96	23†	31	30	50	0.67	.....	0.25	0	3	16	8	7	w.	L. G. Morgan.
Riverside	Malheur	3,000	13	65.0	− 4.7	100	24	24	30	63	0.43	+ 0.21	0.25	0	3	16	12	3	w.	Mrs. Leah Fairman.
Roseburg	Douglas	510	34	65.1	− 1.1	94	21	40	29	39	0.59	+ 0.26	0.16	0	6	16	7	8	nw.	U. S. Weather Bureau.
Salem	Marion	120	22	64.6	+ 1.6	88	21	49	29	30	1.81	+ 1.38	0.38	0	11	16	1	14	nw.	M. P. Baldwin.
Seneca	Grant	4,800	1	52.6	.....	88	23	17	30	57	1.27	.....	0.90	0	4	12	10	9	nw.	W. S. Southworth.
Silver Lake	Lake	4,700	15	60.6	− 0.3	91	24	31	31	48	1.45	+ 1.13	0.49	0	6	13	16	2	w.	G. W. Marvin.
Siskiyou	Jackson	4,115	4	60.0	.....	86	22†	37	30	32	0.16	.....	0.10	0	2	5	14	12	n.	U. S. Weather Bureau.
Sparta	Baker	4,150	21	60.5	.....	90	24	31	27	45	2.31	+ 1.64	1.25	0	8	11	9	10	w.	J. A. Wright.
Stafford	Clackamas	400	16	64.2	− 2.2	92	22	46	2	36	5.10	+ 4.24	1.19	0	10	.....	.....	.....	sw.	John P. Gage.
The Dalles	Wasco	112	38	69.2	− 1.1	99	23	46	28†	38	0.55	+ 0.38	0.25	0	5	19	2	10	w.	S. L. Brooks.
Toledo	Lincoln	75	22	59.0	− 1.9	87	20	40	1†	42	4.50	+ 3.96	1.70	0	7	24	4	3	sw.	C. B. Crosno.
Umatilla	Umatilla	340	24	70.8	− 2.9	100	24	45	30	43	1.10	+ 0.80	0 32	0	11	14	1	16	sw.	Mrs. Helen T. Duncan.
Union	Union	2,787	....	59.8	.....	90	23	29	30	49	1.54	.....	0.98	0	6	10	15	6	nw.	Robt. Withycombe.
Vale	Malheur	2,242	20	67.8	− 1.2	101	24	30	29	54	1.33	+ 1.07	1.22	0	2	22	8	1	ne.	H. P. Osborne.
Van	Harney	3,506	....																	Geo. Howe.
Vida	Lane	1,100	1	62.9	.....	89	21	44	29	39	4.89	.....	1.44	0	11	10	11	10	w.	W. H. Pendell.
Waldo	Josephine			63.9	.....	91	23	38	29	45	0.20	.....	0.15	0	2	17	8	6	n.	M. M. Lewis.
Wallace Orchard	Polk	170	3	63.8	.....	91	21	45	2	42	1.90	.....	0.38	0	9	11	10	10	.....	Chas. A. Park.
Wallowa	Wallowa	2,935	9	59.0[a]	.....	90[a]	8	25[a]	30	50[a]	2.23	.....	1.04	0	9	13	4	14	nw.	L. J. Coverstone.
Wamic	Wasco	1,500	11																	A. J. Swift.
Warmspring	Crook	1,500	10																	Claude C. Covey.
Wasco	Sherman	1,263	5	66.5	.....	98	23	50	4†	39	0.88	.....	0.41	0	4	17	7	7	w.	J. W. Howell.
Westfall	Malheur	3,000	1																	H. M. Gilliam.
Weston	Umatilla	1,800	20	63.1	− 5.2	95	23	42	29	39	1.91	+ 1.27	0.58	0	7	7	5	19	s.	M. A. Baker.
Williams	Josephine	1,368	20	64.6	− 1.7	96	23	35	30	50	0.08	− 0.20	0.08	0	1	21	8	2	n.	Francis J. Le Roy.
Yonna	Klamath	4,146	5	59.1	.....	90	7	26	15	50	0.98	.....	0.27	0	6	6	19	6	w.	Jacob Rueck.

[a], [b], [c], etc., indicate respectively, 1 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow

[1] Beginning with this issue the station formerly published as Parkdale will be designated as Mount Hood; the station formerly published as Mount Hood will be designated Parkdale.

TABLE 2.—*Daily precipitation for August, 1912. District No. 12, Columbia Valley.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Anaconda	Missoula	.46	*	.81		.01	T.			.01					T.	.04	.01		.72		T.						T.	T.	T.	.06	T.	.11	2.23
Butte	do	.45	.20	T.		T.	T.			.30					.10	.42	T.	.30	T.								T.		.15	T.	T.	T.	1.92
Columbia Falls	Flathead	.51		.04								.12					.06										.20		.09		.63	1.65
Como	Bitter Root	.19			.10											.01		.25	.14										.11		.02	.32	1.14
Dayton	Flathead	.32	T.	T.															.35										.25		T.	0.92
East Anaconda	Missoula	*	1.29	T.		.01	T.			.03					T.	*	.06		.69								T.	T.	T.	.03	T.	.07	2.18
Fortine	Kootenai	T.		.20						T.	T.	.15				.28	T.	.20	.04									.14	.02	.17	T.	.45	1.65
Hamilton	Bitter Root	.15	.35	.02												T.	.08		.15	.03									.13		.27	1.18
Hat Creek	Missoula	.24	.43	.20	T.	.01	.06			.04						.01	.07		.83	.18							T.	.06	.07	.07		.24	2.51
Haugan	do	T.		.02							T.	T.					.01										.12	.16	.12	.05	.85	1.33
Heron	Columbia		.06	.14	.07						.02	.06				.06	.04	.05									.24	.05	.70	.12	1.74	3.35
Kalispell	Flathead	.51		.05	.01						.03					.02			.10								.07	.12	T.		.12	1.03
Libby	Kootenai		T.	.02	T.					T.		T.				.14	.04	T.	T.								.01	T.	.32	T.	.93	1.46
Lost Creek	Missoula	.65	.06	.52															.56								.05		T.			1.84
Missoula	do	.21	.02	.65	.10		.01										.22		.38	.03									.04	.13		.09	1.88
Ophir	do	.30		.15		T.				.12								1.05	.20							T.			T.			1.82
Ovando	do	.60	T.	.35	.02	T.	T.		T.	.02	T.	.10				.73	.20	T.	.51	.10	.65	T.						.06	.05	.25	T.	.05	3.69
Philipsburg	do	.40	.23	.78		T.		.15									.17		.27	.04											T.	.30	2.34
Plains	Columbia	.04		.04							T.	T.	T.			.70			.32	.07							.17	.13	.11			.35	1.93
Pleasant Valley	Kootenai	.12	.60	.08	T.		T.				.11	.02	.01			.26	.03	T.	.23								.13	.11	.12	.02	.75	2.59
Polson	Flathead	.74		.13	.38														.57								.03			.62		2.47
Saint Ignatius	do	.25		.30	.70												.25		.49	.07							.25		.27		.25	2.83
Saltese	Missoula																										.33		.31		1.25	1.89
Stevensville	Bitter Root	.10	.14	.07													.14	T.	.17	.03									.20	.05	.20	1.10
Thompson Falls	Columbia				.04								T.				T.			T.							.20	.06	.14	T.	.56	1.00
Willow Glen Stock Farm.	Missoula	.30	.20	.40					.10								.20													T.		1.20
Wyoming.																																
Afton	Snake	.15		.35		.12	.03								.52	.11		.13	.42							.03	.26					2.12
Alta	do	.69	.02	.29		.03		.04							.02	.73	.51		.27	.22							.50	.06				3.38
Bechler River	do	1.20														.04	.06	.02	.04							1.10			.04			2.50
Bedford	do	.23	.06	.26												.51	.05	.28	.32							.08	.26					2.05
Moran	do	.71		.12	.15			.05								.57	.34	.07	.38	.16							.18					2.73
Snake River	do	.98	.04	.04	T.	.10		.02	T.							.54	.25	.07	.68	.50	T.						T.	.44	.07	.02	T.		3.75
Nevada.																																
San Jacinto	Snake																													.05			0.05
Utah.																																
Standrod	Raft	.07		.09											.11	.10		.91	.41							.21	.29					2.19
Idaho.																																
Albion	Snake																															
Almo	do	.15			T.						.10			T.				.45									.30	.20				1.20
American Falls	do	.04		.16											.18	.06		.48								.98						1.90
Arrowrock	Boise																															
Blackfoot ||	Blackfoot	.73	.03	.03											T.	.05		.33								.45	T.					1.62
Blackfoot Dam	do		.85	.10												.65	.06	.35	.20								.14					2.35
Bogus Creek	Payette																															
Boise	Boise		T.	.02		T.									T.				T.							.01		T.		T.	.04	0.07
Bonners Ferry	Kootenai	.85		.11	.05							.15				.11														.23	.04	.90	2.44
Boulder Mine	Boise	.18	.05	.07	.04										.04											T.	.06					.18	0.62
Buhl	Snake	T.		T.					T.							T.										.08						0.08
Caldwell	Boise	.03		.12											.03	.03														T.	T.	0.21
Caldwell Experiment Station.	do	.04		.13										.06																		0.23
Camas	Lost R. Reg.																															
Cambridge	Weiser	.10		.25																											.20	0.55
Cedar Creek Dam	Snake	.14	.09			T.									T.	.02		.16			T.	.15										0.56
Chesterfield	Port Neuf	1.45												T.	.82	.70	.10	.30	.20			T								T.		3.57
Clarks Fork	Pend Oreille			.37	.40						.11	T.				.04	.11	.09	.03								.10		.60	.18	1.95	3.98
Clyde	Lost R. Reg.																															
Council	Weiser	T.	T.	.08														T.													31		0.39
Culdesac	Clearwater			.34												.40	.06	.02	.05								.18	.27	.15	.17	.68	2.32
Deary	do			.03												.33	.06		.21									.20	.22	.42	1.40	2.87
Dent	do				.30											.21	.12	T.	T.								.10	.32	.10	.17	1.13	2.45
Driggs	Snake	.54		.03			T.	T.								.60	.33	.22	.10	.13							.05	.10					2.10
Emmett ||	Payette	.23		.37												.25											T.		T.			0.85
Forney	Salmon																															
Garden Valley	Payette	1.02		.15													.07										.05		T.			1.29
Garnet	Snake																															
Glenns Ferry	do	.42		.20																												0.62
Gooding	Wood-Malad	T.		T.																												T.
Grand Forks	St. Joe	T.		T.	.09						T.					.01	.13	.04		.02							.17	.18	.26	.12	1.73	2.75
Grandview	Snake		.05	.10																												0.15
Grimes Pass ||	Boise	.02	.13												.04				T.							.10				T.	.36	0.65
Guffey	Snake	T.		.53	.09										.41											T.	.03	T.			.01	1.07
Hailey	Wood-Malad	.20	T.		.03										T.				1.50								.13					1.86
Hollister	Snake	.03	.02	.05											.25	T.		.12				.04				.20	.10					0.81
Hotspring	Bruneau	.05	.25	.07																												0.37
Idaho Falls	Snake	.29	.19	.95	.01										T.	.11		.14	.12	.06								41					2.28
Indian Valley ||	Weiser	.01		.33																											T.	0.34
Irwin	Snake	1.00		.05											T.		.20	.15	.25					T.	T.	.57		1.00	T.			3.22
Kellogg ||	C. d'Alene				.12							.11				.05	.13	.09	.02								.38	.07	.44	.07	.81	2.29
Kirkham	Payette	.90	.09	.08													T.			T.						.10					.28	1.45
Kooskia	Clearwater			.05	.03											.10	.20		.04								.04	.05	.40	.05	.56	1.52
Lakeview	Pend Oreille		.44	.15							.05			.10		.05	.10	.05	.20								.30	.05	.61	.06	1.64	3.80
Landore	Snake	.15		.42		T.										T.	.38		.01										.10	.04	.55	1.65
Leadore	Salmon	.27	.10	.08	.03	T.	.02									.02	.02		.13	.60								02				.04	1.33
Lewiston	Clearwater			.25												.12	.07	.06	.15								.07	.01		.15	.37	1.25
Little Camas	Boise		T.	.10											T.											T.	.06				.04	0.20
Loon Creek	Salmon	.63	.03	.08											.12		.01	.01	T.								09				.45	1.42
Mackay	Lost R. Reg.	.12	.02	.28		.11												.75	.06							.13					.04	1.51
Meridian	Boise	T.		.09	T.										T.																T.	0.09
Mesa ||	Weiser																															
Middle Fork	Clearwater			.08	.10												.22		.01								.05		.39		.42	1.27
Milner	Snake	T.																														T
Moscow	Palouse		.02	.03	.05											.05	.18	.12	.05	.05							.30	.05	.15		1.05	2.10

TABLE 2.—*Daily precipitation for August, 1912. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Idaho*—Continued.**																																	
Mountainhome	Snake	.08																															0.08
Murtaugh ||	do																									.23						0.23
New Meadows	Salmon																																
Nezperce	Clearwater			.57												.52			.18								.21	.33	.03	.08	.24	2.16
Oakley	Snake	.06																.20									.06					0.32
O'Hara Bar	Clearwater																																
Orofino	do			.17												.41	.05		.06								.12	.42	.05	.20	.95	2.43
Payette	Payette	.03		.18											T.		T.										T.	T.			.05	0.26
Pebble	Port Neuf	.87		T.	T.										.03	.58	.12	.18	.22								.22					2.22
Pierson	Salmon	19																										.23				0.42
Pleasant Valley	Boise			.04	.02										.02												T.				.01	0.09
Pocatello	Port Neuf	.40		T.											.03	.12	.09	.30								.19	.06					1.19
Pocatello Nursery	do																																
Poplar	Snake	.32		.08												.60	.27	.27	.13													1.67
Porthill	Kootenai			.28	.10							.22				.05		.04										.08		.07	.39	1.23
Priest River Experiment Station:																																	
No. 1	Pend Oreille	.10	T.	.54	.17	T.	T.				.03	.04	T.			.23	.09	.01	.03	T.							.04	.04	.47	.13	1.04	2.96
No. 2	do	T.		.47	.12	T.					.08	.01				.20	.05	.01	.03	T.	T.						.02	.03	.41	.11	1.00	2.54
No. 3	do	T.		.50	.13	T.	T.				.09	.01	T.			.23	.06	.01	.04	T.	T.						.03	.04	.42	.13	.99	2.68
Pyle Creek	Payette	.90	.01	.06											.04	.05				.04							T.				.36	1.46
Richfield	Wood-Malad	.08	.23																T.							T.	.10					0.41
Roseberry	Payette	.13		.01											T.	T.	T.										T.				.30	0.44
Roseworth	Snake	T.																								.13						0.13
Rupert	do	.41	.08	.01												T.											.23	.04				0.77
St. Anthony ||	do																																
St. Maries	St. Joe			.09	.05						T.					.26	.05	.02	.06								.38	.08	.10	.03	1.08	2.20
Salmon	Salmon	.06		.02													.02	.15	.10													0.35
Sandpoint	Pend Oreille	.06		.58	.08						.03					.11	.05		.08								.12	.05	.12	.12	1.22	2.62
Sheep Hill	Boise				.02										.02					T.						T.					.02	0.06
Shoshone	Wood-Malad																																
Silver City	Owyhee	.05	T.	.34											.09												.01				.04	0.53
Smith Prairie	Boise																																
Soldier Creek	Wood-Malad	.72													T.				T.							T.	.02				T.	0.74
Spirit Lake	Pend Oreille				.03	.03										.34	.09	.17									.14	.04	.13	1.65	.17	2.79
Springfield	Snake	.68	.34														T.	.45									.28					1.75
Sugar||	do	.15	.18	.21												.20	.11	.04		.20							.50	.07				1.66
Sunnyside	do														T.																	T.
Tripod Mountain	Payette	.39	.21																												.28	0.88
Twin Falls	Snake		.06						.02																	.08						0.16
Vernon	do	.30		.28		T.										.50	.05	.08	.19	.17						.06	.60	.07				2.30
Wallace	C. d'Alene				.04											.01	.07	.02									.22	.17	.28		1.39	2.20
Weiser	Weiser	.45		.30	T.										T.					T.										T.	.14	0.89
Wendell	Wood-Malad																		T.													T.
Washington.																																	
Aberdeen	Coast								.13	.04						.33	2.03													.87	.56	3.96
Anacortes	Puget Sound								.92	.14	.08					1.22	.45														.36	3.17
Baker	do	.21		.11					1.02	.14	.22	.07				.96	.66	T.							T.					.46	.55	4.40
Bellingham	do	.16							1.03							1.30	.68													.04	1.26	4.47
Bellingham (near)	do								.71	.67	.15					1.29	.95		.03												1.15	4.95
Blaine	do	.10							.24	.63	.05	T.			T.	1.38	1.19		.01						T.		T.		.02	.12	.92	4.66
Blewett	Wenatchee																																
Bremerton	Puget Sound	.06						.26	.34	.10						.18	.28											.18	.06	.08	.12	1.66
Brewster	Columbia	.01									T.					1.67	.07	.01	.01									T.		.15	.07	1.99
Bumping Lake	Yakima																																
Cedar River	Puget Sound	.05							1.27	.04	.13	.09				.55	1.52	.06	.09								.10		.17	.53	.51	5.11
Centralia	Coast	.06							.97	.08	2.50	.11			T.	.18	1.54	.23									.07	T.	.03	.25	.32	6.34
Cheney	Spokane																																
Cle Elum	Yakima															.41	.32	.02	.08											.43	.43	1.69
Clearbrook	Puget Sound	.37							.15	1.42	.30					1.33	.75		.05								.05			.39	3.00	7.81
Colfax	Palouse			.07												.22		.37	.07									.35			1.24	2.32
Colville	Columbia			.03					.04							.51	.04		.03											.21	.48	1.34
Conconully	Okanogan	.01		.04					T.		T.					1.15	.26	.04	.05	.05										.32	.14	2.06
Cowiche	Yakima															.28	.03											T.		.06	.15	0.52
Crescent	Spokane																																
Darrington	Puget Sound																																
Davenport	Columbia			.06												.35	.11	.04											.13	.09	.86	1.64
Dayton	do			.40											T.	.19	.08	.35	.17								.04	.05		.22	1.54	3.04
Deer Park	Spokane			.48	.05											.21	.09	.03	.03								.02	.02	.20	.11	1.21	2.45
Detroit	Puget Sound	.12							1.00	.02	.19	.19			.01	.30	.93	.11	T.									.10		.37	.29	3.63
Dixie	Columbia			.66												.30	.28	.35	.19								.02	.08	.15	.53	2.00	4.56
Douglas Lake	Puget Sound	.02							.83	.11	.04				.02	1.54	.47														.36	3.39
Dryden	Wenatchee	.07							T.	T.						.43	.12	.02											T.	.20	.10	0.94
Duckabush	Puget Sound																																
Ellensburg	Yakima										T.					.48	.09	T.	.05												.12	.21	0.95
Ephrata	Columbia															1.10	.90														.20		2.20
Forks	Coast																																
Fort Simcoe	Yakima																																
Gerome	Columbia			.02		T.					T.				.02	.19	T.	.01										T.		.05	1.00	1.98
Goat Lake	Puget Sound										1.05	.98		.86	.52		.64												.42	.68	.30	5.45
Gold Basin	do								.90	.51	.40	.15				1.12	.90										T.	.90	.10	.70	.75	6.43
Gold Creek	Yakima														.25			.10													.50		0.85
Goldendale	Columbia															.21	.27	.20	T.									T.			.30	.70	1.68
Granite Falls	Puget Sound	.12							1.53	.35	.10					.90	1.99	.22	.12							.01		.63	.01	.58	.31	6.93
Grays River	Coast																																
Hanford	Columbia			.19												.34	.04	.07												.15	.14	0.93
Hatton	do			.14							T.					.42	.14		.07								.02			.18	.27	1.24
Huntsville	do			.70												.15		.24	.26											.21	1.40	2.96
Irene Mountain	do			1.00	.02						T.					.49	.01	T.											.10	.24	.38	2.24
Kennewick	do			.07											T.	.57	.02	.02	.02									.03	T.	.18	.35	1.26
Kent	Puget Sound	T.							.53	.02	.15	.06				.28	.80	.20											.08	.25	.15	2.32
Kettle Falls	Columbia	.03		.18							.04					.43	.20	.06												.08	.23	.65	1.90
Kiona	Yakima																																
Kosmos	Columbia								.70	.07	.21	.07			.06	.31	2.06	.36	T.											.17	1.34	1.83	7.18
La Center	do							.27	.47	.13	.05				.28	.62	1.29										.02	.20	.23	1.49	.37	5.42
La Crosse	Palouse	T.		.16											T.	.18	.07	.09	.03								T.	.06	.03	.19	.97	1.78
Lake Clealum	Yakima	.18							.13	.01	T.	T.			T.	.46	.53	.06	.04											.65	.34	2.40
Lake Kachess	do	.34						.22		T.	T.					.46	.70	T.	.18											.76	.96	3.62
Lake Keechelus	do	.08							1.08	.03	.04					.55	.91		.10											.85	1.20	4.84
Lakeside	Columbia	.07		T.							T.	T.				.50	.14	.01	.03											.20	.09	1.04
Laurel	do								.04							.11	.16	.17	.01											.09	.84	1.42

TABLE 2.—*Daily precipitation for August, 1912. District No. 12*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
***Washington*—Con.**																																	
Laurier	Kettle	T.		.22	T.	T.				T.	.02	T.				.39	.05	.02											.09	.18	.30	.43	1.70
Lone Tree	Coast	T.							.06	.01	.22	.25			T.	.33	2.04	.17										.15		.02	.91	.34	4.50
Longmires Springs	Puget Sound								.90	T.		.20				.70	1.50														1.00	1.10	5.40
Lost Creek	Columbia	T.		.05												.07	.01	.01	.01												.01	.02	0.18
McConihe	Columbia			.19												.65	.49		.04								T.	T.			.26	.11	1.74
McCumbers Ranch	do														.05	.20	.60	.20	.05												.10	.90	2.10
Moses Lake	do			.19												.58	.10		.03														0.90
Mottinger	do			.41												.48		.02											.08		.23	.45	1.67
Mount Pleasant	Coast	.01							.11	T.	.12	.03			.02	.27	.37	.05											.20		T.	.15	1.93
Moxee	Yakima			T.					T.						.03	.27	.03	.02	.01								T.	T.		.04	.09	0.49
Newport	Pend Oreille	T.		.62	.04	.01					.02					.20	.10	.05	.12								.04		.45	.09	1.07	2.81
North Head	Coast								.10	.09	.08	.02				.59	1.47	.05						.02					.02	.33	.43	3.20
Northport	Columbia	.33	.01	.02	T.				T.	T.					.02	.53	.10	.02									.15	.06	.70	.28	2.22
North Yakima	Yakima						T.				T.				T.	.23	.04	.02	.03								T.	T.	T.	.04	.14	0.50
Nutland	Columbia															.04		.20														.32	0.56
Odessa	do			.10												.58	.06	.03	.06										.05	.20	.65	1.73
Olga	Puget Sound								.97		.10					1.34	.82												.06		.33	3.62
Olympia	do								.89	.07	.15	.03			.10	.11	.98	.15									T.		.03	.33	.20	3.10
Omak	Okanogan	.02		.04					T.							1.06	.05	.03													.20	.08	1.48
Oroville	do								.20							.75											T.	T.		.12	.15	1.22
Parker	Yakima																																
Peola	Snake			.55												.14	.21		.10								.19	.20		.21	1.13	2.73
Pomeroy	do	T.		.12	T.											.03	T.	.20		T.							.03	.02		.40	.96	1.76
Port Crescent	Coast								.67	.11	.04	.01			.29	.54	.58												.02	.07	.26	2.59
Port Townsend	Puget Sound	.01							.72	.14	.05				.06	.74	.46	.01	.01								T.	.02		.02	.05	2.29
Pullman	Palouse	.01		.03												.07		.12	.07								.16	.03	.03	.39	1.23	2.14
Queets River	Coast		T.			T.			.20	.08	.83	.64	T.		T.	.04	2.85	.87	T.	T.							.02		.01	1.11	.34	6.99
Quinault	do	.02							1.08	.38	1.20	.10			.15	.16	2.10													.88	1.00	7.07
Republic	Kettle			.52	.08	T.										.50	.05	.02	.04											.16	.80	2.17
Rex Creek	Columbia								.28							.66	.10									.10	.17						1.31
Ritzville	do			.12												.32	.12		.92								.03			.20	.42	2.13
Robertsville	do								.01		T.				T.		.35	.17	.02								T.			.14	.84	1.53
Rock Lake	Palouse			.34												.25	.53										T.	.14		.36	.54	2.16
Rosalia	do	T.		.14							T.				T.	.25	.25	.14	.02								.26	.08	.03	.12	.81	2.10
Russells Ranch	Yakima	.31	.31						T.	.04	T.				.32	.09	T.												T.	.30	.90	2.27
Seattle	Puget Sound								.80	.02	.12	.04			.19	.18	.72	.06						T.	T.		T.	T.	.01	.11	.24	2.49
Sedro Woolley	do	.19							.94	.10	.77	.02				1.55	1.11		.05											.41	.60	5.74
Sixprong	Columbia															.12	.06															.30	0.54
Skagit Power Dam	Puget Sound	.04							.26	.12	.16	.08				1.02	.22		.24						.05					.40	.50	3.09
Snohomish	do	.10							1.30		.10					.80	1.50	.20											.80		.20	5.00
Snoqualmie Falls	do	.03							.90	.04	.13		T.		T.	.77	.67	.01	.05	T.								.03	.62		.25	.91	3.81
Snoqualmie Pass	do																																
Snyders Ranch	Columbia	.12							T.	T.						1.04	0.15		T.											.15	T.	1.46
South Bend	Coats	.01							.43	.04	.41	.04				.26	2.14	.54								.05		.22		.63	.67	1.07	6.51
Spokane	Spokane			.29							T.					.14	.18	.01	.04							T.	.04	.01	.05	.14	1.16	2.06
State University	Puget Sound																																
Stokes Ranch	Columbia	.02							.11		.03					1.30	.11													.21	.03	1.81
Sumner	Puget Sound								1.09	.06	.08	.04			T.	.27	.82	.27	.01										.03	.34	.21	3.22
Sunnyside	Yakima			.11												.17	.02	.04	.04										.03	.08	.25	0.74
Tacoma	Puget Sound								1.00	T.	.21	.21			.08	.06	1.33		T.											.38	.17	3.44
Tatoosh Island	Coast			.04	T.				.11	1.02	.58	.02			.01	1.08	.90							.01					.07	.16	.33	4.33
Tieton	Yakima										T.	T.				.32	T.	.03	.09	.04										.12	.61	1.21
Touchet	Columbia			.45									T.	T.		.11	.13	.02	.08								T.		T.	.22	.30	1.31
Touchet Ridge	do			.68												.45	.90		.35										.95		1.85	5.18
Trinidad	do															.30	.34	.19	.09												.12	1.04
Vancouver	do							T.	.67	.04	.06				.02	.40	.78	.68									.10	.05		.12	.65	3.57
Vashon Island	Puget Sound								.98	T.	.31	.13	T.		10	.07	.15	.32	.01	T.							T.	T.	.04	.24	.19	2.54
Wahluke	Columbia			.32												.31	.03	.05	.02										.08	.24		1.05
Wallace	Okanogan	.01		.18					.09							.96	.05	.06									.09	.03		.30	.18	1.95
Walla Walla	Columbia		T.	.64											.08	.27	.39		.16								T.		.01	.23	.89	2.67
Washougal	do								.25		.20					.78	.85	.80									.03	.04	.02	.93	1.70	5.60
Waterville	do	T.														.46	.30		.06											.26		1.08
Wenatchee	do															.42	.12													.25	T.	0.79
Wenatchee (near)	do									T.	T.				T.	.25	.29	.04	.04									T.		.20	.18	1.00
White Salmon	do								T.						.02	.10	.33	.42									T.			.12	1.02	2.01
Wilbur	do			.67												.80	.17	.15										.05		1.08	.08	3.00
Wind River	do														.02	.68	1.41	.52												.70	2.42	5.75
Winthrop	do	T.							T.							1.26	.07									T.	T.		T.	.17	.06	1.56
Yacolt	do								.28		.29					.59	1.59	.96									.01			1.13	1.75	6.60
Yale	do	.02							.55	.06	.57					.70	2.40	.28	.01								.02	.04	.04	1.82	2.79	9.30
Zillah	Yakima																																
Oregon.																																	
Albany	Willamette								.39	T.	.02					.13	1.20	.14	.23										.09	.38	.02	.33	2.93
Allingham	Deschutes								.02						.02	.05	.02	.13											.05	.01	.06	.48	0.84
Ana River	SE. drainage		.12	.06										T.	.03			.20											.27			T.	0.68
Ashland	Rogue															T.		T.					.05						T.			.10	0.15
Astoria	Columbia	.03							.12	.01	.18	.04				.52	1.36	.32												T.	.59	.92	4.09
Austin	John Day		.22	.42											.41	.01											.02	.11		.06	.20	1.45
Baker	Snake		.31	.99		.08									.04	.01		T.	T.								T.	.10		.08	.08	1.69
Bay City	Coast							.04	.11		.39					1.58	.80	.68									.04		.07	.72	1.78	6.21
Bear Creek	Deschutes	.07	.27	.11											.05	.19		.07										.05				0.81
Bear Valley	SE. drainage	.10	.70	.50											T.	.02	.04	.13														1.70
Beech Creek	John Day	.15	.15	.95											.07	T.		.05										.15		.06		1.74
Bellfountain	Willamette								T.		.01					.09	.70	.08									.01			.15	.51	2.15
Bend	Deschutes														.08	.29	.12	.16														0.65
Big Basin	John Day		1.50													.50														.04	.06	2.10
Black Butte	Willamette			T.				T.								.60	.05	.10									.10	.15			.40	1.40
Blalock	Columbia															T.	T.	.22	T.								T.			T.	.30	0.52
Blue Mountain sawmill.	Umatilla			.96												.93		.40	.04												1.50	3.83
Brogan	Malheur			.46																													0.46
Buena Vista	Snake			1.07												.03				T.									.03	.04	.02	T.	1.19
Burns	SE. drainage	.44																											T.				0.44
Burns Mill	do			.35	.65									.15					.17											.15	.14	1.61
Butte Falls	Rogue															.25						T.									.29	0.54
California Gulch	Umatilla		.96													.46	.40										.08			.14	.42	2.46
Canyon City	John Day																																
Cascade Locks	Columbia								.11		.15	T.				.52	.89	1.08										T.	.10	.78	2.60	6.23
Cascadia	Willamette							.20		.05					.05	.44	1.89	.60									.07	.30		.60	1.26	5.46
Cazadero	do							T.	.20		.06	T.				.45	.62	.56										.07	.10	.35	.84	3.25

TABLE 2.—*Daily precipitation for August, 1912. District No. 12*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Oregon—Contd.																																	
Christmas Lake	SE. drainage		.09												.02	.09		.20											.32				0.72
Cliff	do	.20	.05	.06										T.	.04	.15		.15											.30		.03		0.98
Columbia Mine	Snake			1.54											T.	.35	T.	T.	T.								T.	T.	.10	T.	.12	.38	2.49
Condon	John Day																																
Coquille River Lighthouse	Coast										.15				.06	.37		.04											.06		.10	.44	1.22
Cornucopia	Snake		T.	1.35											T.	.02		T.	.19										.11	T.	.12	.81	2.60
Corvallis	Willamette								.08						T.	.45	.67	.25											.48		.25		2.18
Cracker Creek	Snake		T.	1.00											.05	.03	T.	T.	T.										.01	T.	.03	.02	1.14
Crescent	Deschutes		.09	.07												.04	T.	.29	T.				.07						T.	.01	T.	.04	0.61
Dayville	John Day		1.10	.38											.45	.08	T.	.15									T.		.10		.06	.01	2.33
Deadwood	Coast								T.							.50	.85	.10											.15	.50	1.36	.12	3.56
Diamond	SE. drainage	.05	.24	.27																										.05	T.		0.61
Doraville	Columbia			T.			T.		.99	.05	.20	.02			.06	.44	1.35	.45							T.			.02	.01	.16	.42	.71	4.88
Drain	Umpqua															.42	.03	.14										.01	.02		.00	.60	1.31
Dufur	Columbia										T.				.03	.10	.03	.07										T.	.11		.03	.05	.42
Duncan	Umatilla		1.25	.35												.50	.25													.05	.30	.50	3.20
Echo	do			.33											T.	.35		.07											.14		.53		1.42
Ella	Columbia														T.	.08		.27								.04			.08		.04	.31	0.82
Embody	SE. drainage	.15	.05											.50	.05	.20		.05													.30	.10	1.40
Eugene	Willamette							T.								.35	.25	.11								T.			T.	T.	.20	.41	1.32
Fairview	Coast																																
Falls City	Willamette																																
Fir Glen	Coast															.47	.01	.07										.05	.01		.30	.53	1.44
Florence	do								.08		.21					.55	.15	.21											.15		.31	.68	2.34
Forest Grove	Willamette																																
Fort Rock	SE. drainage	.07	T.											.07	.15			.15			T.	T.						T.	.15		.05		0.64
Galice	Rogue															.14		.01										T.	.04			.08	0.27
Gardiner	Umpqua																																
Gibbon	Umatilla																																
Glencoe	Columbia			.05												.25	.06											.38	.04			.55	1.33
Glendale	Umpqua	T.														.06												T.	.03			T.	0.09
Glenora	Coast								.30	.02	.32					2.50	1.33												2.95	.60	.20	.60	8.82
Gold Beach	Rogue														.50														.20			.40	1.10
Golden Falls	Coast										.10				T.	.85	.05	.10										.03	T.		.57	2.05	3.75
Grande Ronde	do														T.	.75							.50		.50		.40	.20	.60	.20	.30	.30	3.75
Grants Pass	Rogue															.03																	0.03
Grass Valley	John Day															.20	.06	.22											.05			.35	0.88
Greenhorn	Snake		1.09	.49	.01					.02			T.		.36	.05	.01	.01	.02		.01							.01	.07	.01	.24	.64	3.04
Gumboot	do	T.		.49													.15	.14											.10	.15		.40	1.43
Gurdane	Columbia			.04												.01	T.		.04									.01	.01	T.	.01	.03	0.15
Hampton	Deschutes	.12	.21	.09											.07	.22		.17											.35		.05	.04	1.32
Happy Home	Umpqua	.10													T.	.35		.08										.14	.10		.13	.34	1.24
Harbor	Columbia					T.		T.				T.	T.	.40	.20	.13		T.			T.	T.	T.	T.				.09			.10	.83	1.75
Hay Creek	Deschutes															.31	T.	.22										T.	.04		.12	.09	0.78
Hazeldell	Willamette								T.					T.	T.	.28	.17	.21				.20						T.	.28	.10	.23	.25	1.72
Headworks	do							T.	.30	.02	.15					.82	1.50	1.03										.11	.40	.08	.76	1.42	6.59
Heppner	Columbia														.05	.19	.05	.25	T.								.13	.01	.11			.35	1.14
Hermiston	Umatilla			.25												.29	.02												.12		.16	.28	1.12
Hermoso Rio	Deschutes														.05			.05										.04				.33	0.47
Hilgard	Gnd Ronde		1.30													.20	T.		.10										.10	T.	.45	.40	2.55
Hood River:																																	
No. 1	Columbia																																
No. 2	do								T.						.01	.09	.34	.37													.13	1.13	2.07
No. 3	do								T.						.03	.11	.12	.49													.20	.78	1.73
No. 4	do								.04		T.				T.	.11	.11	.53										T.			.20	.86	1.85
Hoover	Willamette								.09						.09	.79	1.48	.39										.06	.15	.11	.47	1.70	5.33
Howardville	Gnd. Ronde			.96												.15	.06	.02	.02									.05	.08		.12	.50	1.96
Huntington	Snake	.01	.01	1.45																													1.47
Ibex Mine	John Day		.54	.42											.09	.35	.02												.11	T.	.25	.08	1.86
Ironside	Snake		.22	.52	.14																										.05	.09	1.02
Jacksonville	Rogue															.07																.07	0.14
Joseph	Gnd. Ronde	.06		.75		.06										.30	.03		.40										.23		.05	.40	2.28
Klamath Agency	Klamath			1.02																								.50					1.52
Klamath Falls	do			1.34														.07											.40			.08	1.89
La Grande	Gnd. Ronde																																
Lakeview	Pitt																																
Lilyglen	Rogue															.04	T.						.22						.10	T.		.19	0.55
Long Creek	John Day	.04	T.	.85											.09	.08	.02	.09										T.	.08		.07	.08	1.40
Long Valley	Pitt																																
McKenzie Bridge	Willamette											.02			.14	.76	.52	.45	.04									.10	.11	.04	.33	1.36	3.87
McMinnville	do							T.	.34	T.	.03				T.	.84	.38	.15										T.	.35	T.	.20	.37	2.66
Marshfield	Coast										.15	.01	T.		T.	.37	.01	.08	T.				T.			.04			.09	T.	.12	.77	1.64
Maury	Deschutes			.45											.08	.16	.17							T.					.09	.07	.11	T.	1.13
Meacham	Umatilla		.60											T.		1.00	T.	T.	T.				T.	T.					T.		T.	.60	2.20
Meadow Brook Rch.	Columbia																																
Medford	Rogue															.03		T.														.04	0.07
Merrill	Int. drainage		1.40																			.11							.09				1.60
Metolius	Deschutes														.18	T.	.19											.05			.18	.04	0.64
Mikkalo	John Day																																
Miller Prarie	do			.36														.25											.24			.26	1.11
Miramonte Farm	Willamette								.73						T.	.96	.51	.48											.17	.03	.26	.59	3.73
Monroe	do								.02		T.				T.	.59	.68	.12										.01	.10		.07		1.59
Mountain Home	Columbia								.08	.14	.15	.03			T.	.60	1.01	.55	T.										.09	T.	.69	1.00	4.94
Mount Angel	Willamette								.55	.18						.60	.68												.75	.20		.60	3.56
Mount Hood	Columbia								.17		T.				.02	.07	.15	.66											.11	.02	.23	.97	2.40
Mountain Ranch	Rogue															.20															T.	0.20
Musick	Umpqua														.59	.35		.75				.15	T.					.75	1.00	.05	.50	1.85	5.99
Newport	Coast								.06							1.96	1.57	.40						.02					.31		.20	1.14	5.66
Ochoco	Deschutes			.06											.08	.20	.17		T.									.02			T.	.02	0.55
Ochoco Creek	do		T.													.16			.22													.11	0.49
Odel	Columbia															.10	.10	.55											.01		.20	.85	1.81
Ortley	Columbia								T.						T.	.10	.30	.20													.10	.60	1.30
Owyhee	Owyhee	.36	T.	.95																										T.	T.		1.31
Paisley	SE. drainage																																
Parkdale	Columbia								12							.07	.10	.62											.14		.18	1.02	2.25
Pendleton	Umatilla			.60												.28	.03	.02											.01	.03	.30	.52	1.79
Persist	Rogue														.16	.16	.18	.10				.02						T.				T.	0.62
Pilot Rock	Umatilla			.73											.30	.10	.33												.02	.29	.10	.39	2.26
Pompeii	Columbia																																
Portland	Willamette			.01				.06	.63		.04	T.			T.	.43	.83	.12										.03	.33		.22	.69	3.39

TABLE 2.—*Daily precipitation for August, 1912. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Contd.																																	
Port Orford	Coast															.09		.23											.12		.06		0.97
Post	Deschutes			.47											.08	.20	.23		.06									T.	.03		.37		1.33
Power House	Columbia			.36												.02		.03										T.	.10	.04	.05	.40	2.03
Prairie City	John Day	.04	.84	.51																													
Prineville	Deschutes														.06	.42	T.	.12				.10										.25	0.95
Prospect	Rogue															.03		.20											.22		.06	.08	0.99
Rager Creek	Deschutes	.04	.02	.34							T.					.13	.04	.12											.23		.06	.07	0.65
Ramsey	Columbia														.40	.60	T.	.10	T.										T.	T.	.20	.15	1.45
Range	John Day																T.	.35	T.	.28	.03								.16	T.	.08	.20	1.10
Ray Creek	Columbia			T.											.16			.18														0.34
Redmond	Deschutes															.38	.15											.05		.07	.40	1.05
Reston	Umpqua																																
Richland	Snake	.20	.25																										T.		T.	.22	0.67
Riverdale	Deschutes		.33										T.	T.				.15				T.					.02	.15	.04		.02	T.	0.71
Riverside	Malheur	.10	.25	.08																										T.			0.43
Rock Creek	Willamette								T.			T.			1.64		.14												.14	.10	1.11	T.	3.13
Roseburg	Umpqua															.13		.16										.03	.07		.04	.16	0.59
Rosland	Deschutes		.15											.01	.10	.51		.08				.09	.05						.02		.05	.15	1.21
Salem	Willamette	.02							.24	.03						.32	.36	.16										.04	.38	.02	.10	.14	1.81
Seneca	SE. drainage	.20		.90												T.		T.											.12		T.	.05	1.27
Silver Lake	....do		.37													.29		.20			.08								.49		.02		1.45
Siskiyou	Rogue															.10																.06	0.16
Sisters	Deschutes														.50	.10		.17											.03			.19	0.99
Sparta	Snake	.03	.36	1.25		.10												.05											.15		.12	.25	2.31
Stafford	Willamette								.83	.08	.04				T.	.84	.83	.76										.18	.15		.20	1.19	5.10
Starkey	Gnd. Ronde		1.40												.35	.17		T.											T.		T.	.30	2.22
Summit	Willamette								.26		.09				T.	1.07	1.10	.27											.22		.53	1.02	4.56
Summit Prairie	Deschutes																																
Susanville	John Day		.90	T.											.80	T.													.20		.15	.06	2.11
Tamarack	....do															.40		.04	.25							.10	.04				.13	.20	1.16
Telocaset	Snake		.03	.07												.03			.04										.13		.03	.02	0.35
The Dalles	Columbia															.08	.09	.08											T.		.05	.25	0.55
Tinroof	Umatilla		T.	.63						T.						.59	.27	T.	.19									.02	.05	.05	.35	.43	2.58
Toledo	Coast							.10			.20				1.70	1.30												.20		.40	.60		4.50
Trail	Rogue															.14		.08														.07	0.29
Trask	Coast																																
Umatilla	Columbia			.25											.28		.02		.01							.05		.05				.44	1.10
Union	Gnd. Ronde			.98		.01										.22													.03		.12	.18	1.54
Vale	Malheur		T.	1.22																												.11	1.33
Valley Falls	SE. drainage		.09	.44										.01				.16										.04		.05			0.79
Van	Malheur																																
Vida	Willamette								.76		.06				.19	.96	.55	.44				.05						.10	.06	T.	.28	1.44	4.89
Vistillas	Interior drainage	.04	.22	.15								.02						.09			.10								T.				0.62
Waldo	Rogue															.15																.05	0.20
Wallace Orchard	Willamette								.25						T.	.38	.31	.14										.06	.36	.06	.14	.20	1.90
Walloupa	Gnd. Ronde			.61												.19	.03	.02	.04	T.								.09	.12	T.	.14	.65	1.89
Wallowa	....do	T.		1.04												.13	.01	.02	.02									.03	.13		.09	.76	2.23
Wamic	Deschutes																																
Warmspring	....do																																
Wasco	Columbia															.17	.10	.20									T.			T.		.41	0.88
Welches	....do								*	.71					1.75	.85													.72	1.80	.70	6.53
Westfall	Malheur																																
Weston	Walla Walla		.45												.05	.10	.21	.01	T.									T.	T.	T.	.58	.51	1.91
Williams	Rogue															.08												T.			T.	0.08
Yonna	Interior drainage		.13	.16														.23				.27					T.		.13			.06	0.98

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 12, Columbia Valley.*

Date.	Montana.				Afton, Wyo.		Idaho.																			
	Kalispell.		Missoula.				Boise.		Bonners Ferry.		Hot Spring.		Lewiston.		Mackay.		New Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	66	60	77	61	76	.....	82	64	80	55	82	65	84	67	.....	.....	.....	.....	69	58	84	54	.....	.....	68	56	79	59
2....	76	54	84	57	82	.....	85	59	82	52	88	55	91	58	.....	.....	.....	.....	80	52	90	58	.....	.....	78	50	84	50
3....	73	55	83	56	80	.....	76	57	70	50	82	55	75	60	70	46	.....	.....	79	56	86	53	.....	.....	72	40	67	52
4....	72	52	81	57	79	.....	79	55	67	47	82	53	82	54	73	47	.....	.....	76	51	80	41	.....	.....	68	45	72	52
5....	76	43	80	45	79	.....	84	58	72	48	88	56	88	54	76	40	.....	.....	83	51	85	40	.....	.....	75	42	79	42
6....	70	45	76	52	78	.....	82	57	70	40	88	56	85	58	76	46	.....	.....	81	53	84	43	.....	.....	71	44	73	47
7....	75	48	80	48	70	.....	83	55	81	41	86	55	89	54	73	54	.....	.....	75	54	87	44	.....	.....	70	51	83	43
8....	82	46	89	46	79	.....	96	61	81	44	98	55	98	56	83	51	.....	.....	84	51	89	41	.....	.....	79	44	92	47
9....	74	53	81	54	86	.....	81	59	75	52	95	58	83	61	81	54	.....	.....	89	59	86	49	.....	.....	80	48	75	49
10....	73	53	77	54	79	.....	81	55	72	46	86	57	86	60	.....	.....	.....	.....	82	55	87	46	.....	.....	78	45	71	48
11....	69	48	76	50	77	.....	81	54	70	47	90	53	82	61	.....	.....	.....	.....	82	53	82	42	.....	.....	77	40	72	48
12....	69	41	79	38	78	.....	84	52	75	37	92	55	86	53	82	45	.....	.....	85	49	78	38	.....	.....	80	39	76	42
13....	79	42	83	40	81	.....	90	53	79	38	96	56	92	51	82	44	.....	.....	87	51	77	36	.....	.....	80	43	82	40
14....	82	49	90	42	85	.....	82	65	85	40	92	61	85	55	80	49	.....	.....	87	55	81	40	.....	.....	84	44	89	42
15....	83	54	90	54	82	.....	84	59	70	50	90	64	75	54	75	42	.....	.....	77	57	76	38	.....	.....	68	55	74	49
16....	59	43	62	45	73	.....	67	47	60	44	84	51	69	50	74	47	.....	.....	66	48	61	33	.....	.....	66	47	57	42
17....	62	41	70	41	83	.....	73	47	62	45	78	42	72	54	68	34	.....	.....	61	48	78	37	.....	.....	63	38	58	46
18....	57	46	57	49	64	.....	71	47	67	44	74	52	68	55	.....	.....	.....	.....	68	51	70	36	.....	.....	61	46	63	45
19....	63	47	67	48	66	.....	74	47	73	38	78	48	77	48	68	40	.....	.....	72	48	74	47	.....	.....	62	41	71	48
20....	72	46	77	43	83	.....	82	50	82	42	85	45	85	50	72	39	.....	.....	79	42	78	36	.....	.....	72	38	82	41
21....	77	47	84	44	84	.....	89	52	85	43	90	51	93	54	83	43	.....	.....	86	50	85	37	.....	.....	78	42	85	44
22....	80	48	87	45	82	.....	91	57	88	47	95	54	95	53	76	50	.....	.....	88	52	85	42	.....	.....	75	43	86	45
23....	88	49	90	44	80	.....	94	57	88	47	94	55	98	56	83	55	.....	.....	89	55	82	42	.....	.....	81	43	89	48
24....	88	44	91	46	84	.....	94	57	89	48	99	57	97	57	84	54	.....	.....	92	51	86	40	.....	.....	83	43	87	46
25....	80	54	86	50	84	.....	90	57	78	50	90	58	89	63	.....	.....	.....	.....	88	60	91	41	.....	.....	84	45	76	40
26....	82	49	91	46	89	.....	93	58	85	44	94	55	90	59	88	45	.....	.....	92	56	93	43	.....	.....	87	40	87	47
27....	71	50	75	62	72	.....	80	58	62	49	89	57	77	55	76	51	.....	.....	77	56	84	37	.....	.....	70	56	66	51
28....	66	48	74	45	78	.....	79	47	64	44	86	52	64	50	74	40	.....	.....	81	52	82	38	.....	.....	74	44	57	46
29....	57	42	60	46	76	.....	64	47	60	40	78	50	68	48	73	43	.....	.....	67	53	72	36	.....	.....	65	41	55	40
30....	58	33	68	30	72	.....	73	40	50	32	75	40	60	42	64	34	.....	.....	69	40	78	27	.....	.....	62	28	56	33
31....	54	45	56	46	78	.....	71	54	53	43	80	45	68	53	71	34	.....	.....	78	42	70	38	.....	.....	70	32	52	46
Mns.	72.0	47.6	78.1	47.9	78.7	.....	81.8	54.4	73.4	44.7	87.1	53.7	82.3	54.9	76.2	45.1	.....	.....	79.6	51.9	81.3	41.1	.....	.....	73.6	43.6	74.0	45.7

Date.	Washington.																									
	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	62	48	70	54	89	54	74	55	88	65	61	55	86	66	88	59	62	50	68	57	87	59	82	66	70	54	58	52
2....	64	49	71	45	86	55	73	46	88	60	58	53	86	56	88	54	59	41	71	55	87	59	85	61	72	52	57	51
3....	70	50	70	46	75	50	71	50	77	63	61	55	86	61	84	59	62	51	69	53	89	60	69	58	69	52	59	52
4....	74	52	71	43	68	53	80	44	85	56	61	55	80	53	77	48	64	53	70	57	85	50	73	51	71	55	60	50
5....	78	56	72	47	84	47	83	43	83	61	61	54	88	56	84	48	65	45	74	57	88	56	79	50	75	54	58	52
6....	80	48	74	50	82	43	84	45	87	59	60	56	86	61	85	47	66	48	76	57	84	64	79	54	77	55	63	54
7....	87	50	78	45	86	41	95	46	89	60	70	56	89	58	88	48	75	46	81	58	88	59	80	52	80	54	66	50
8....	63	50	75	57	81	46	77	57	88	61	59	56	89	57	95	47	58	54	69	58	85	60	89	57	69	59	59	53
9....	68	50	72	55	92	45	73	55	79	57	60	57	82	54	80	54	64	55	70	59	79	50	76	39	71	58	61	53
10....	69	51	71	60	82	43	70	54	85	57	63	58	82	54	80	54	64	50	70	59	80	51	76	58	69	58	60	54
11....	74	47	70	50	75	50	74	45	80	56	60	56	82	53	79	50	63	47	70	56	82	54	74	53	71	55	64	53
12....	78	48	72	43	87	41	82	60	83	53	60	54	82	52	82	45	68	42	73	55	85	55	79	52	70	52	59	49
13....	78	47	77	45	85	39	86	45	90	54	61	55	88	51	88	51	71	43	78	56	90	60	81	51	79	52	63	50
14....	65	51	72	47	87	45	69	48	89	58	61	56	88	50	90	55	61	50	69	55	91	72	85	52	68	56	59	53
15....	64	52	64	53	73	54	74	56	81	56	58	52	82	57	84	54	56	50	64	55	82	51	73	50	64	55	55	51
16....	58	51	64	52	72	43	60	50	59	51	58	53	62	48	60	44	57	48	56	51	72	50	57	47	56	51	56	50
17....	65	48	63	44	60	49	68	47	69	51	59	54	69	48	63	50	58	46	64	52	80	55	61	49	65	51	57	48
18....	68	50	66	54	68	50	66	46	74	52	61	54	72	50	67	53	58	47	64	55	73	50	64	52	65	54	58	50
19....	76	49	69	50	80	39	79	46	79	52	61	54	78	46	76	42	60	48	70	53	79	59	73	46	69	52	57	49
20....	82	49	73	49	85	43	84	48	84	54	71	54	82	52	83	46	73	45	75	57	85	62	81	49	73	56	62	49
21....	90	54	76	50	91	44	93	45	89	57	73	55	88	54	89	49	76	52	82	59	95	61	87	51	85	53	73	52
22....	79	55	76	48	91	46	90	50	94	57	59	55	92	54	92	50	68	50	83	58	99	62	90	53	84	55	62	54
23....	71	56	75	50	93	43	87	53	94	60	60	56	95	61	96	49	62	47	78	57	101	62	92	57	80	55	58	53
24....	68	54	74	50	96	45	90	50	92	60	61	57	94	56	92	49	61	51	66	57	98	61	89	59	71	57	59	54
25....	64	47	67	48	90	48	80	56	82	63	60	56	86	57	84	56	60	41	66	56	98	51	80	59	68	56	64	51
26....	66	42	68	44	83	43	68	47	78	55	60	56	82	56	84	52	61	40	67	54	91	62	86	56	68	52	58	52
27....	63	39	65	45	73	53	67	43	80	50	61	54	74	49	74	50	60	41	63	51	71	52	68	51	66	49	59	50
28....	66	44	64	40	75	40	68	39	82	50	59	52	70	42	67	40	57	36	61	48	71	45	60	49	65	45	58	47
29....	65	48	64	46	64	40	65	49	74	47	60	52	70	42	67	44	58	36	64	49	70	49	62	47	65	46	57	48
30....	62	49	62	50	52	48	56	46	61	48	59	52	66	44	61	38	60	49	62	51	73	40	53	46	62	50	58	53
31....	63	53	62	52	55	44	60	49	69	52	60	54	68	52	61	51	57	48	59	52	77	45	57	49	63	52	58	52
Mns..	70.3	49.6	69.9	48.8	79.4	45.9	75.7	48.8	81.7	56.0	61.2	54.7	81.4	53.2	80.3	49.5	62.7	46.8	69.4	55.1	84.4	55.7	75.5	53.0	70.3	53.4	59.8	51.3

TABLE 3. *Maximum and minimum temperatures for August, 1912. District No. 12*—Continued.

Date.	Walla Walla, Wash.		Oregon.																					
			Ashland.		Baker.		Eugene.		Goldbeach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	86	66	81	54	76	59	72	55	66	51	92	65	.....	.....	74	58	.....	.....	75	58	84	64	86	58
2	88	61	80	54	78	54	75	49	67	51	88	54	.....	.....	75	52	.....	.....	79	50	85	55	86	57
3	75	57	78	53	63	49	72	52	68	48	85	60	.....	.....	67	55	.....	.....	75	48	84	64	80	52
4	80	57	83	50	76	46	78	48	65	48	86	53	.....	.....	77	53	.....	.....	84	48	85	52	82	51
5	86	61	84	56	76	49	80	55	66	50	90	55	.....	.....	82	54	.....	.....	86	51	87	56	89	52
6	84	61	87	54	74	47	84	56	65	49	89	55	.....	.....	81	58	.....	.....	89	53	87	60	87	50
7	90	62	88	57	78	47	85	65	64	52	91	50	.....	.....	93	60	.....	.....	89	55	93	59	88	54
8	91	64	80	56	87	51	75	56	67	55	89	53	.....	.....	67	59	.....	.....	78	59	91	68	92	50
9	80	60	78	60	72	53	76	54	66	51	87	56	.....	.....	76	60	.....	.....	80	58	80	57	90	63
10	82	64	80	53	76	47	74	50	72	52	88	53	.....	.....	74	60	.....	.....	80	54	78	60	89	55
11	81	58	86	54	71	46	76	49	73	55	83	55	.....	.....	74	58	.....	.....	81	50	80	55	96	47
12	84	57	89	55	76	43	80	52	70	52	86	47	.....	.....	81	58	.....	.....	87	49	86	52	88	50
13	92	59	91	59	81	47	82	54	61	52	91	45	.....	.....	90	59	.....	.....	88	52	92	54	93	49
14	89	61	88	59	81	51	76	52	61	54	93	55	.....	.....	68	58	.....	.....	67	55	81	61	89	58
15	68	54	66	52	63	38	66	53	66	54	90	56	.....	.....	61	54	.....	.....	64	52	74	58	82	50
16	62	54	68	44	59	36	65	54	69	51	65	53	.....	.....	59	52	.....	.....	70	52	71	51	76	36
17	68	51	68	48	63	45	67	49	68	52	70	52	.....	.....	68	52	.....	.....	70	51	73	52	77	51
18	68	54	76	44	59	44	76	49	69	52	71	53	.....	.....	72	54	.....	.....	76	46	74	50	79	45
19	77	51	83	50	68	38	77	46	72	55	80	45	.....	.....	78	54	.....	.....	79	49	81	49	79	43
20	85	56	92	52	77	41	86	57	67	50	85	48	.....	.....	86	58	.....	.....	89	50	88	50	88	41
21	92	62	92	57	83	47	83	54	63	52	92	55	.....	.....	91	62	.....	.....	94	56	93	57	94	45
22	96	65	91	57	85	49	81	53	62	52	97	51	.....	.....	90	65	.....	.....	87	58	97	64	98	49
23	99	66	93	59	88	48	79	53	64	54	99	54	.....	.....	84	59	.....	.....	91	55	99	64	96	47
24	95	68	91	58	88	51	80	52	62	54	96	.....	.....	.....	78	58	.....	.....	79	56	93	65	101	47
25	87	65	88	55	85	46	77	48	61	53	92	60	.....	.....	77	60	.....	.....	74	57	84	62	97	51
26	87	63	78	56	87	51	72	50	63	53	87	56	.....	.....	66	57	.....	.....	70	55	80	60	98	48
27	70	55	71	53	75	47	70	52	63	49	80	53	.....	.....	67	54	.....	.....	66	49	70	54	89	52
28	63	52	70	53	58	43	64	51	62	46	69	45	.....	.....	64	51	.....	.....	66	44	70	46	80	50
29	66	51	69	44	56	38	69	53	65	45	71	53	.....	.....	70	50	.....	.....	70	40	69	46	77	30
30	63	48	73	41	63	31	66	49	62	49	67	42	.....	.....	66	54	.....	.....	68	47	66	46	74	45
31	67	52	67	51	63	46	67	50	65	57	70	55	.....	.....	67	53	.....	.....	69	58	67	55	68	44
Mns	80.7	58.5	80.9	53.2	73.7	46.1	75.2	52.3	65.6	51.5	84.5	52.9[a]	.....	.....	74.9	56.4	.....	.....	78.1	52.1	82.0	56.3	86.7	49.0

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§ § Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

WEATHER, FORECASTS, AND WARNINGS.

By EDWARD H. BOWIE, District Forecaster.

Alaska.—Pressure averaged decidedly below normal for the month. Lows occurred about the 4th, 6th–7th, 10th, 15th–16th, 18th, 20th–21st, and 29th–30th; and highs about the 1st, 8th, 14th, and 24th–26th.

Honolulu.—Pressure averaged normal for the month. Lows occurred on the 4th–7th, 21st–23d, 27th, and 30th–31st; and highs on the 1st–2d, 10th, 19th, 25th, and 28th–29th.

Azores.—Pressure averaged about normal, being relatively high during the first half and low during the latter half of the month. Lows occurred on the 2d, 15th, 17th–18th, 24th–25th, and 28th–29th; and highs on the 4th–9th, 12th–13th, 20th, 22d–23d, and on the last day of the month.

Iceland.—Pressure averaged above normal. Lows occurred on the 3d, 7th, 10th–11th, 15th–16th, 20th, 22d–23d, and 29th; and highs on the 5th–6th, 9th, 13th, 17th–18th, 21st–22d, 25th, 27th–28th, and 31st.

Siberia.—Pressure averaged slightly above normal. The more important lows of the month occurred about the 1st, 4th, 11th, 13th, 14th–15th, 20th, and 23d; and highs about the 5th, 8th–9th, 15th–16th, 22d, 24th–25th, 27th, and 30th.

Miscellaneous.—Abnormally cool weather prevailed over the British Isles, Germany, and Switzerland, and extremely warm weather over Russia. A severe storm visited the Bay of Biscay on the 13th–14th, causing considerable damage to shipping and the loss of a number of lives. During the last decade of the month, flood conditions prevailed in the eastern counties of England, and railroad traffic was demoralized.

In the United States the month opened with a low pressure area off the middle Atlantic coast, which caused showers in Atlantic coast districts, and high pressure areas were central, one over the Dakotas and another on the north Pacific coast.

During the night of the 1st a disturbance developed over the southern upper Lake region and advanced northeastward during the next two days, causing showers and thunderstorms from the upper Mississippi Valley eastward to the Atlantic coast. Unsettled weather, with showers and thunderstorms prevailed in the Gulf States from the 1st to 5th. A destructive local storm, accompanied by hail, is reported to have occurred at Clover, S. C., on the 3d.

The high pressure area that was central over the Dakotas on the 1st of the month moved to southern Wisconsin by the morning of the 4th and thence passed to the Atlantic coast with diminished intensity. On the morning of the 4th, frosts occurred in the cranberry marshes of Wisconsin, warnings of which had been issued the previous day.

The following weekly forecast was issued Sunday, August 4:

The general distribution of atmospheric pressure over the Northern Hemisphere is such as to indicate that there will be no unusually warm weather in any part of the country during the next week to 10 days. The first part of the coming week will give moderate temperatures in the Eastern and Southern States, followed by a change to somewhat warmer weather the latter half of the week. Over the Middle Wes and the Northwest moderate temperature for the season is probable throughout the week, while west of the Rocky Mountains temperatures will average near or slightly below the normal. The weather during the week will be generally fair, except for a short period of local rains attending the eastward movement of a disturbance that will appear in the far West Tuesday or Wednesday, cross the Middle West about Thursday and the Eastern States near the end of the week. Cooler weather will follow this disturbance.

For the first five days of the month temperatures averaged below normal, except along the immediate Gulf coast and in the southern slope districts of the Rocky Mountains. Precipitation was fairly well distributed, but was generally light.

A low-pressure area that appeared over the northern Plateau region on the 3d, advanced slowly eastward to the Plains States by the morning of the 7th and to the upper Lake region by the 10th. Small craft warnings were issued for Lake Superior on the morning of the latter date. The storm passed northeastward to Quebec by the morning of the 12th. Severe thunderstorms occurred in connection with this storm in the upper Mississippi Valley and in the upper Lake region on the afternoon of the 10th, and a tornado was reported near Fort Worth, Tex., on the 9th. Precipitation was quite general from the Pacific to the Atlantic coast. The abnormally slow eastward movement of this disturbance was due to a persistence of high pressure from the 7th to the 12th over the Canadian Maritime Provinces.

During the 6th a high-pressure area moved inland over the north Pacific States and passed slowly eastward to the Plains States by the 9th. During the 48 hours following it decreased in intensity and lost its identity.

The following weekly forecast was issued Sunday, August 11:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that the coming week will be moderately warm over the Great Central Valleys, the Lake region, and the Eastern and Southern States, while normal temperatures are probable on the Pacific slope and in the Rocky Mountain region. The precipitation during the week will be generally light and local, and fair weather will be the rule. There are no signs at the present time of conditions favorable to the development of a disturbance in West Indian waters.

For the week ending August 12 temperatures were generally below the seasonal average, although along the immediate Gulf and Pacific coasts and over the Southwest they averaged above normal. There was practically no precipitation during the first few days of the week, but from the 7th until the close of the week precipitation occurred over almost all portions of the country east of the Rocky Mountains.

A low-pressure area that was over Alberta on the 10th advanced along the northern border to the Grand Banks by the 16th, causing showers and thunderstorms in northern districts from the Plains States eastward, as well as over portions of the Gulf and South Atlantic States.

A high-pressure area that appeared over Alberta on the evening of the 13th advanced to the upper Lake region by the 16th, and was off the southern New England coast by the 18th.

The following weekly forecast was issued Sunday, August 18:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that the coming week will be one of moderately high temperatures in the Southern States and generally over the Middle West, while in the Northern States and west of the Rocky Mountains temperatures will be near or below the seasonal average. The precipitation during the week will be light and local over the southern half of the country and generally above the normal in the Northern States. The next disturbance to cross the country will appear in the Northwest Tuesday, cross the Middle West about Thursday, and the Eastern States Friday or Saturday. There are no indications at the present time of a disturbance in the West Indies.

For the week ending August 19 temperatures were as a rule above normal over central and southern districts from the Rocky Mountains eastward, except along the immediate northern border. In all other districts temperatures averaged below normal. Precipitation for the week was abundant in the north Pacific Coast States and over an area from Kansas and Missouri northward to the Canadian border and eastward to the Lake region and Ohio Valley. It was decidedly below normal in portions of the South Atlantic and Gulf States.

A low-pressure area that was over British Columbia on the 15th, advanced to the Plains States by the 17th, and by the morning of the 20th was central near the Grand Banks. Showers and thunderstorms occurred over the northern and central tiers of States from the Pacific to the Atlantic coast. Thunderstorms were particularly severe in portions of Indiana.

Conditions remained unsettled with pressure relatively low from the upper Lake region to the southern Plateau after the passage of the storm previously mentioned, and during the four days, 18th to 21st, a disturbance passed northeastward from the southern Plains States to Ontario, causing showers and thunderstorms in the Lake region and Middle Atlantic and New England States.

A low of marked intensity passed from northern Manitoba on the 21st to Quebec on the 23d, and by the morning following was over the Canadian Maritime Provinces. Precipitation was quite general east of the Mississippi River.

On the 19th a high-pressure area passed inland from the north Pacific Ocean and remained practically stationary over the northern and middle Plateau regions until the 22d, when it decreased in intensity and lost its identity.

A low-pressure area appeared over Saskatchewan on the 23d, advanced to Wisconsin by the 24th, and thence passed to the Grand Banks by the 26th. Scattered showers and thunderstorms occurred in northern districts and also in the Middle and South Atlantic States.

The following weekly forecast was issued Sunday, August 25:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that warm weather will be the rule the next several days over the greater part of the country east of the Mississippi River and during the first part of the week in the middle Mississippi Valley and the southern Plains States. A change to considerably cooler weather will overspread the Northwestern States during the next two days, the Middle West by Wednesday and the Eastern and Southern States the latter part of the week. The first half of the week will be generally fair in the Eastern and Southern States and unsettled with local rains in the northwestern districts and the Rocky Mountains region; the latter half of the week will be showery over much of the country from the Great Central Valleys eastward and in the West Gulf States. There are no indications at the present time of a disturbance in the West Indies.

For the week ending August 26, temperatures averaged generally above the normal throughout the country. On the 25th temperatures were unusually high in the Plains States. In districts to the westward of the Rocky Mountains, local showers occurred in the northern mountains during the first part of the week and in portions of the southern districts about the middle of the week—otherwise there was little rain. East of the Rocky Mountains showers and thunderstorms occurred during the first part of the week from the upper Mississippi Valley eastward to the middle Atlantic coast, and more or less rain occurred over nearly all districts east of the Mississippi River by the middle of the week. During the latter part of the week there was little precipitation in the Great Central Valleys. Showers, however, occurred in portions of the Atlantic and Gulf coast districts.

A low-pressure area appeared over Alberta on the 24th, advanced to Ontario by the 26th, and by the 28th had passed to the Canadian Maritime Provinces. It caused showers and thunderstorms from the Mississippi Valley eastward. A severe local storm passed over Kearny, N. J., on the 26th.

A high-pressure area was central over the Plains States on the 26th and advanced to the Middle Atlantic States by the 28th.

A low-pressure area that was central over British Columbia on the evening of the 26th caused showers during the next 24 hours over the northern Plateau and northern Slope States. The disturbance advanced to Minnesota by the 28th and during the 24 hours following decreased in intensity and disappeared. It caused showers and thunderstorms from the Missouri Valley eastward over Middle and Northern States. A severe local storm occurred at Spooner, Wis., during the night of the 27th. Following the disappearance of the low just mentioned, a high-pressure area of slight intensity appeared over Lake Superior on the 29th, and by the last of the month had advanced to southern New England, causing frosts in northern New York and northern New England on the morning of the 31st, warnings of which had been previously disseminated.

From the 24th to the end of the month pressure was relatively high in the South Atlantic and East Gulf States, and temperatures were generally above normal over central and southern districts east of the Mississippi River. In the South Atlantic States some of the highest temperatures of the season were reported.

On the last day of the month pressure was relatively high over the East and low over the West, a low being central over Alberta, with a trough extending southeastward into the southern Plains States.

No storms of tropical origin visited the United States during the month.

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since Jan. 1.	Average departures since Jan. 1.
New England	12	65.2	−2.0	−12.0	−1.5
Middle Atlantic	15	71.2	−1.3	−12.7	−1.6
South Atlantic	10	78.4	+0.6	− 5.4	−0.7
Florida Peninsula [1]	9	81.8	+0.5	+ 2.0	+0.2
East Gulf	11	79.6	+0.4	−11.1	−1.4
West Gulf	11	82.0	+1.0	−13.9	−1.7
Ohio Valley and Tennessee	14	73.3	−1.5	−21.1	−2.6
Lower Lakes	11	66.2	−3.4	−27.6	−3.4
Upper Lakes	13	62.7	−3.6	−28.7	−3.6
North Dakota [1]	9	63.4	−2.7	−11.6	−1.4
Upper Mississippi Valley	14	71.7	−1.2	−25.5	−3.2
Missouri Valley	12	74.1	+0.3	−13.9	−1.7
Northern slope	9	64.1	−2.6	−12.8	−1.6
Middle slope	6	75.6	+0.4	−17.0	−2.1
Southern slope [1]	8	80.6	+1.0	− 9.1	−1.1
Southern Plateau [1]	10	78.2	−1.7	− 5.6	−0.7
Middle Plateau [1]	10	67.5	−2.2	− 7.1	−0.9
Northern Plateau [1]	10	63.4	−3.6	− 5.3	−0.7
North Pacific	7	60.5	−0.6	+ 6.9	+0.9
Middle Pacific	7	64.3	−0.6	− 2.1	−0.3
South Pacific	4	69.1	−1.4	+ 1.5	+0.2

[1] Regular Weather Bureau and selected cooperative stations.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
New England	11	2.96	77	−0.90	− 1.40
Middle Atlantic	15	2.96	88	−0.40	− 1.10
South Atlantic	11	3.87	63	−2.30	− 1.60
Florida Peninsula [1]	9	5.03	73	−1.90	+ 9.30
East Gulf	11	4.90	100	0.00	+13.30
West Gulf	10	3.09	103	+0.10	− 1.50
Ohio Valley and Tennessee	14	4.00	118	+0.60	+ 3.90
Lower Lakes	10	3.89	130	+0.90	+ 0.80
Upper Lakes	13	4.19	140	−1.20	− 0.50
North Dakota [1]	9	3.13	134	+0.80	+ 1.90
Upper Mississippi Valley	15	3.73	115	+0.50	− 1.30
Missouri Valley	12	3.80	112	+0.40	− 2.70
Northern slope	9	1.53	124	+0.30	+ 0.60
Middle slope	6	3.44	141	+1.00	+ 0.40
Southern slope [1]	8	3.13	134	+0.80	+ 2.40
Southern Plateau [1]	9	1.08	84	−0.20	+ 0.40
Middle Plateau [1]	11	0.82	100	0.00	0.00
Northern Plateau [1]	10	1.92	369	+1.40	+ 2.40
North Pacific	7	2.86	511	+2.30	− 0.70
Middle Pacific	7	0.01	100	0.00	− 3.40
South Pacific	4	0.06	.....	+0.10	− 0.20

[1] Regular Weather Bureau and selected cooperative stations.

Average relative humidity and departure from the normal.

Districts.	Average.	Departure from normal.	Districts.	Average	Departure from normal.
New England	79	− 3	Missouri Valley	68	+ 1
Middle Atlantic	74	− 2	Northern slope	62	+10
South Atlantic	80	− 2	Middle slope	66	+ 7
Florida Peninsula	77	− 2	Southern slope	62	+ 1
East Gulf	82	+ 2	Southern Plateau	46	+ 4
West Gulf	74	− 1	Middle Plateau	41	+ 8
Ohio Valley and Tennessee	78	+ 6	Northern Plateau	52	+ 9
Lower Lakes	78	+ 7	North Pacific	79	+12
Upper Lakes	83	+ 8	Middle Pacific	64	− 3
North Dakota	78	+14	South Pacific	66	0
Upper Mississippi Valley	76	+ 6			

Average cloudiness and departure from the normal.

Districts.	Average.	Departure from normal.	Districts.	Average.	Departure from normal.
New England	6.0	+1.0	Missouri Valley	3.8	−0.3
Middle Atlantic	5.5	+0.4	Northern slope	4.4	+0.5
South Atlantic	5.2	0.0	Middle slope	3.8	0.0
Florida Peninsula	5.3	+0.1	Southern slope	3.6	−0.3
East Gulf	5.7	+0.5	Southern Plateau	2.8	−0.9
West Gulf	3.9	−0.1	Middle Plateau	2.7	−0.6
Ohio Valley and Tennessee	5.9	+1.4	Northern Plateau	4.6	+2.3
Lower Lakes	6.2	+1.6	North Pacific	5.7	+1.1
Upper Lakes	6.8	+2.1	Middle Pacific	3.4	−0.2
North Dakota	5.5	+1.5	South Pacific	2.2	−0.6
Upper Mississippi Valley	5.3	+1.1			

Data, maximum wind velocities.

Stations.	Date.	Velocities.	Direction.	Stations.	Date.	Velocities.	Direction.
Bismarck, N. Dak.	11	50	nw.	Oklahoma, Okla.	8	52	n.
Buffalo, N. Y.	26	50	sw.	Pierre, S. Dak.	11	60	ne.
Cleveland, Ohio	26	54	sw.	Pierre, S. Dak.	18	52	w.
Concordia, Kans.	5	51	ne.	Pittsburgh, Pa.	18	55	nw.
El Paso, Tex.	22	51	ne.	Point Reyes Light, Cal.	8	50	nw.
Minneapolis, Minn.	19	54	e.	Point Reyes Light, Cal.	9	54	nw.
Modena, Utah	17	50	sw.	Point Reyes Light, Cal.	14	50	nw.
Mount Tamalpais, Cal.	7	61	nw.	Point Reyes Light, Cal.	15	74	nw.
Mount Tamalpais, Cal.	8	70	nw.	Point Reyes Light, Cal.	16	64	nw.
Mount Tamalpais, Cal.	9	60	nw.	Point Reyes Light, Cal.	17	52	nw.
Mount Tamalpais, Cal.	15	72	nw.	Point Reyes Light, Cal.	28	52	nw.
Mount Tamalpais, Cal.	28	75	nw.	Point Reyes Light, Cal.	29	59	nw.
Mount Tamalpais, Cal.	29	68	nw.	Point Reyes Light, Cal.	31	63	nw.
Mount Tamalpais, Cal.	31	60	nw.				
North Head, Wash.	15	53	s.				
North Head, Wash.	30	54	se.				

RIVERS AND FLOODS, AUGUST, 1912.

By H. C. FRANKENFIELD,

Professor in Charge, River and Flood Division.

A moderate flood occurred in the Wisconsin River from the 10th to the 20th. At Wausau the crest stage was 9.9 feet, 0.4 foot above flood stage, on the 10th. Special warnings were issued for this rise, and they were of much value. About $2,000 worth of property was destroyed.

High water occurred in the upper Trinity River from the 7th to the 11th. The only place where the flood stage was exceeded was at Dallas, Tex., where the crest stage was 26.5 on the 8th, 1.5 feet above flood stage. Ample warnings of this rise were given.

The rivers were unusually low in North Carolina and central California. In several places they reached the lowest stages ever recorded since regular observations were begun.

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

SPECIAL PAPERS ON GENERAL METEOROLOGY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Junior Professor in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Anonymous publications are indicated by a ———.

Australia. Commonwealth bureau of meteorology.
Report upon observations made during an official visit to Europe, Asia, and America, with recommendations referring to the meteorological service of Australia, by H. A. Hunt. [Melbourne.] 1911. 61 p. f°.

Bavaria. Königliche bayerische meteorologische Central-Station.
Deutsches meteorologisches Jahrbuch für 1911, Bayern. Jahrg. **33.** München. 1912. var. pag. f°.

owman, Isaiah.
Forest physiography. New York. 1911. xxii, 759 p. 8°. [Treats of the climate of the United States under each of its geographic provinces.]

Bremen. [Meteorologisches Observatorium.]
Deutsches meteorologisches Jahrbuch für 1911, Freie Hansestadt Bremen. Jahrg. **22.** Bremen. 1912. 84 p. f°.

British rainfall organization.
British rainfall, 1911, by H. R. Mill. London. 1912. 108, [388] p. 8°.

Chree, C[harles].
Studies in terrestrial magnetism. London. 1912. xii, 206 p. 8°. (Macmillan's science monographs.)

Cottrell, Frederick Gardner.
The electrical precipitation of suspended particles. n. p. [1911.] 21 p. 8°. (*Reprint:* Jour. of indust. & engin. chem., August, 1911, v. **3,** no. 8.)

Curityba (Brazil). Observatorio meteorologico.
Resumo geral des observações, 1911. Curityba. [1912.] 2 folded sheets. 8°.

Delteil, A.
Note sur le climat de la Réunion. Paris. [n. d.] 39 p. 8°.

Deuxième expédition antarctique française, "Pourquoi-pas" (1908–1910).
Observations météorologiques, par J. Rouch. Paris. [1912.] 260 p. 16 pl. 4°.

Donnersberg (Bohemia). Meteorologisches Observatorium.
Das meteorologische Observatorium auf dem Donnersberge, und die ersten Beobachtungsergebnisse im Lustrum 1905–1909, von Rudolf Spitaler. Prag. 1912. 39 p. f°. (Veröffentl. No. **1.**)

Egypt. Survey department.
The rains of the Nile basin, 1910. Cairo. 1912. [6], 110 p. 4°. (Survey dept. paper no. **6.**)

Ellis, Don Carlos.
A working erosion model for schools. Washington. 1912. 11 p. 4 fig. 8°. (U. S. Off. exper. sta. Circ. **117.**)

Fowler, John S. & Marriott, William.
Our weather. London. 1912. xi, 131 p. 16°. (The Temple primers.)

[Great Britain. Meteorological office.]
[Meteorological observations in Crown colonies, 1910.] n. t. p. [282] p. f°.

Great Britain. Royal observatory, Greenwich.
Results of the magnetical and meteorological observations, 1910. Edinburgh. 1912. var. pag. f°.

Havana. Colegio de Belen, Observatorio.
[Observaciones meteorológicas] Año de 1911. Habana. 1912. 16 p. f°.

Hongkong. Observatory.
Meteorological observations, 1911. Hongkong. 1912. 108 p. f°.

Indo-China. Service météorologique.
Bulletin pluviométrique, 1911. Phu-Lien. 1912. unpaged. f°.

Lisbon. Observatorio "Infante D. Luiz."
Annaes, 1910. v. **48.** Lisboa. 1911. 131 p. f°.

Liverpool. Observatory.
Report of the Director . . . and meteorological results deduced from the observations taken . . . 1911. Liverpool. 1912. 45 p. 8°.

Lockyer, William J. S.
Report of the solar eclipse expedition to Vavau, Tonga islands, Apr. 29, 1911 (eastern date). London. 1912. [5], 82 p. 10 pl. f°. (Great Britain. Solar physics committee. Publication.)

London. Solar physics observatory, South Kensington.
Report upon the work, 1911. [n. p.] [1912.] 21 p. 8°.

Mehl, Adolf.
Der Freiballon in Theorie und Praxis. Stuttgart. [n. d.] 2 v. 12°.

Möller, M.
Weltamt für Wetterkunde. Braunschweig. 1912. xvi, 32 p. 8°.

Prussia. Landesanstalt für Gewässerkunde.
Jahrbuch für 1908. Berlin. 1911. var. pag. f°.
Jahrbuch für 1909. Berlin. 1911. var. pag. f°.

Quervain, Alfred de.
Aus der Wolkenwelt. Zürich. [1912?] 10 p. 3 pl. 4°. (Neujahrsblatt d. Naturf. Gesell. in Zürich auf d. J. 1912. **114.** Stück.)

Rayleigh, Lord.
Scientific papers. v. **5,** 1902–1910. Cambridge. 1912. xii, 624 p. 4°. [Includes papers on the composition of the atmosphere, radiation, tides, and wind pressure.]

Rudaux, Lucien.
Les phénomènes météorologiques dans les Pyrénées. Leurs conséquences; le déboisement. Paris. 1910. 53 p. 8°. (Revue de géographie annuelle.)

Russia. Central physical observatory.
Observations sur la densité de la couche de neige, 1903/4–1907/8, par E. Berg. St.-Pétersbourg. 1911. x, 41 p. f°. (*Reprint:* Annales de l'Observatoire physique central Nicholas, 1908, 1re partie.)

Schmidt, Albert.
Niederschlagskarten des Taunus. Stuttgart. 1912. 28 p. 3 maps. 8°. (Forsch. z. deut. Landes- u. Volkskunde. **19.** Bd. Heft 5.)

Schulze, Franz.
Luft- und Meeresströmungen. Leipzig. 1911. 149 p. 16°. (Sammlung Göschen. No. **551.**)

Sutton, J. R.
A note on the land and sea breezes of South Africa. (*Reprint:* Trans. R. soc. So. Africa, v. **2,** pt. 3, 1912. p. 293–300.)
Some causes and effects of variation in the range of temperature. (*Reprint:* Trans. R. soc. So. Africa, v. **2,** pt. 4, 1912. p. 341–356.)
Sunshine at Kimberley. [n. t. p.] 3 p. 8°. (*Reprint:* Agr. jour. of the Union of So. Africa, May, 1911.)

Switzerland. Abteilung für Landeshydrographie.
Graphische Darstellungen der Schweizerischen hydrometrischen Beobachtungen so wie der Lufttemperaturen u. Niederschlagshöhen für das Jahr 1910. [German and French text.] Bern. 1911. 11 p. 58 fold. pl. f°.

Ventou-Duclaux, L. & Robert, M.
Bases et méthodes d'études aérotechniques. Paris. 1911. vii, 572 p. 137 fig. 8°.

Wernicke, E.
Wetterkunde. Leipzig. [1912.] 42 p. 16°. (Naturw.-Techn. Volksbücherei, No. **6.**)

Whitson, A. R. & Baker, O. E.
The climate of Wisconsin in its relation to agriculture. Madison, Wis. 1912. 65 p. 8°. (Univ. Wis. Agr. exp. sta. Bull. **223.**)

Wilson, Wilford M.
Frost in New York. Ithaca, N. Y. 1912. 507–543 p. 8°. (Cornell univ. Agr. exp. sta. Bull. **316.**)

RECENT PAPERS BEARING ON METEOROLOGY.

C. FITZHUGH TALMAN, Junior Professor in Charge of Library.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of the meteorological contents of

all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a ———.

American society of civil engineers. Proceedings. New York. v. 38. August, 1912.

Grant, Kenneth C. The floods of March 22, 1912, at Pittsburgh, Pa. p. 889–908.

Associated Sunday magazines. September 1, 1912.

Moore, Willis Luther. Weather warnings. p. 12–13.

Cambridge philosophical society. Proceedings. Cambridge. v. 16. pt. 7. 1912.

Oxley, A. E. The detection of small amounts of polarization in light from a dull sky. p. 561–570.

Geographical journal. London. v. 11. September, 1912.

Huntington, Ellsworth. The fluctuating climate of North America. p. 264–280.

Heating and ventilating magazine. New York. v. 9. August, 1912.

Campbell, William. Rotation of normal temperatures. p. 11–13.

Mines and minerals. Denver. v. 33. September, 1912.

——— Barometric pressure and mine gas. p. 66–67.

Nature. London. v. 89. August 29, 1912.

C., R. Forests and rainfall. p. 662–664.

Nature. London. v. 90. September 12, 1912.

Chree, C[harles]. Studies of aurora. p. 38–40. [Review of works by C. Störmer.]

Physical review. Lancaster. v. 35. August, 1912.

Harvey, Frederic A. The half-values of the radioactive deposit collected in the open air. p. 120–127.

Science abstracts. London. v. 15. August, 1912.

Holmes, H. N. Atmospheric ozone. p. 360. [Abstract.]

Scientific American. New York. v. 107. 1913.

——— Instrumental observations of the sun's heat. p. 177. (Aug. 31.) [Description and illustration of Dupaigne's instrument.]

Benner, R. C. Smoke, the destroyer. p. 181; 186. (Aug. 31.)

——— Black lightning flashes. p. 183. (Aug. 31.)

——— Detecting icebergs. p. 194. (Sept. 7.) [Abstract of address by Prof. Barnes.]

——— What is miasma? p. 222. (Sept. 14.) [Abstract of lecture by Trillat.]

——— The antiquity of the rainbow. p. 236. (Sept. 14.)

Scientific American supplement. v. 74. 1912.

Ewell, Arthur W. The earth's atmosphere, its properties and extent. p. 130–131. (Aug. 31.) [Abstract of paper by A. Wegener.]

——— The "green flash." A natural phenomenon illustrated by artificial means. p. 139. (Aug. 31.)

Church, J. E., jr. The conservation of snow. Its dependence on forests and mountains. p. 152–155. (Sept. 7.)

Académie des sciences. Comptes rendus. Paris. t. 155. 2 septembre 1912.

Maltézos, C. Contribution aux phénomènes de la foudre. p. 515–518. [Curious lightning phenomena in a building, ascribed to an "electric wind."]

Archives des sciences physiques et naturelles. Genève. t. 34. 15 août 1912.

Gockel, A. Le rayonnement pénétrant à la surface de la terre. p. 120–126.

Cosmos. Paris. 61 année. 5 septembre. 1912.

Boyer, Jacques. Nouvelles méthodes de mesure des nuages à l'observatoire de Montsouris. p. 232–284.

France. Bureau central météorologique. Annales. Paris. t. 1. 1907.

Angot, Alfred. Études sur le climat de la France. Régime des vents. p. 33–100.

Nature. Paris. 40 année. 1912.

Chassériaud, R. Les quatres formes du vent. p. 161–162. (10 août.)

Coupin, Henri. La neige jaune. p. 225–226. (7 sept.)

Société météorologique de France. Annuaire. Paris. 60 année. Avril–mai. 1912.

Angot, A[lfred] & others. Observations météorologiques faites pendant l'éclipse de soleil du 17 avril 1912. p. 109–120.

Étienne, M., & Corone, A. Observations sur les trombes marines. p. 126–128.

Kaiserliche Akademie der Wissenschaften. Sitzungsberichte. Wien. 120. Band. 1911.

Exner, Felix M. Über die Entstehung von Barometerdepressionen höherer Breiten. p. 1411–1434. (November.)

Kaiserliche Akademie der Wissenschaften—Continued.

Hann, J[ulius] v. Ergebnisse von Dr. E. Glaser's meteorologischen Beobachtungen in Sanâ (el Jemen). p. 1833–1935. (Dezember.)

Kaiserliche Akademie der Wissenschaften. Sitzungsberichte. Wien. 121. Band. Jänner 1912.

Blumenschein, P. Anselm. Bearbeitung der Potentialgefallsregistrierungen in Kremsmünster in den Jahren 1909–1911. (Beiträge zur Kenntnis der atmosphärischen Elektrizität XLVI.) p. 25–61.

Luftflotte. Mannheim. Band 4. August, 1912.

Schrötter, Hermann v. Das Klima im Flugzeug. p. 116–118.

Meteorologische Zeitschrift. Braunschweig. Band 29. August, 1912.

Günther, S[iegmund]. Die Meteorologie in Bayern. p. 353–366.

Fischer, Karl. Maurers Verdunstungsmessungen an Alpenseen und die Verdunstungsmessungen der preussischen Landesanstalt für Gewässerkunde am Grimnitzsee. p. 366–372.

Bauer, Josef. Über das atmosphärische Ozon. p. 372–378.

Ficker, H[einrich] v. Kälte- und Wärmewellen in Nordrussland und Asien. p. 378–383.

Stoye, Karl. Hagelkörner, gefallen während des Gewitters am 12. Mai 1912. zu Halle. p. 383–384. [Conical hailstones. Illustrated.]

Süring, R[einhard]. Glimmentladungen an Wolkenrändern. p. 389–390.

Hann, J[ulius]. Klima von Triest. p. 393–396.

Mitteilungen aus den deutschen Schutzgebieten. 25. Band. 2. Heft. 1912.

——— Meteorologische Beobachtungen aus dem Grenzgebiet von Kamerun und Spanisch-Guinea. p. 77–78.

Heidke, P. Meteorologische Beobachtungen in Deutsch-Ostafrika. Teil VII. Zusammenstellung der Monats- und Jahresmittel aus dem Jahre 1910 an 49 Beobachtungsstationen. p. 103–175.

Petermanns Mitteilungen. Gotha. 58. Jahrgang. Juli 1912.

Heidke, P. Die periodischen Fehler barometrisch bestimmter Höhenunterschiede in der inneren Tropenzone. p. 21–22.

Mecking, L. Der Witterungscharakter an der Gauss-Station und die Fragen der südhemisphärischen Zirkulation. p. 22–24.

Physikalische Zeitschrift. Leipzig. 13. Jahrgang. 1. September 1912.

Berndt, Georg. Luftelektrische Beobachtungen in Argentinien. V. Frühling, Sommer, März und April. p. 820–825.

Weltall. Berlin. 12. Jahrgang. 2. Juniheft 1912.

Habenicht, H. Die Eiszeitenparallele zwischen Norddeutschland und Alpen. p. 265–266.

DOG DAYS.

The following is extracted from a letter recently prepared in the Weather Bureau in reply to an inquiry as to the origin and significance of the common custom of referring to certain weather conditions of the summer period as the "dog days."

As this is a subject rarely referred to in meteorological works the letter is reproduced for the information of those who may not have access to the definition of the term.

The term "dog days" belongs to ancient Egyptian astrology. The ancients knew that Sirius, or the Dog Star, rose and set with the sun, or heliacally, during portions of July and August, and assumed that the baleful influence of that star was added to the heat of the sun in those days. But this agreement as to dates varies with every latitude on the earth's surface and with the precession of the equinoxes among the stars. There is therefore no close connection between the duration of the dog days and the dates of our hottest weather. We have our warm, moist, oppressive weather on our Atlantic coast during July to September, whereas it occurs in Australia during January and February. Moreover, our oppressive dog-day weather in New England is quite the opposite to the exhilarating hot, dry weather that occurs at the same time over our western prairie and plateau regions; therefore it is not proper to say "that dog days show up each year at the same time." The dog-day weather of this latitude is simply a combination of the influences of several factors on our bodily comfort. The important factors are southwest to southeast winds, moisture from the ocean, clear sky, hot sunshine. This combination may occur at any time of the year, but is of course most severe when the sun is farthest north of the equator and has unduly heated the atmosphere for a more or less lengthy period.

P. C. D.

CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given, for the various sections of the Climatological Service of the Weather Bureau, the average temperature and rainfall, the stations reporting the highest and lowest temperatures with dates of occurrence, the stations reporting the greatest and least monthly precipitation, and other data, as indicated by the several headings.

The mean temperatures for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperature and precipitation are based only on records from stations that have 10 or more years of observations. Of course the number of such records is smaller than the total number of stations.

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS.

Temperature and precipitation by sections, August, 1912.

Section.	Temperature (° F.).							Precipitation (in inches and hundredths).					
			Monthly extremes.							Greatest monthly.		Least monthly.	
	Section average.	Departure from the normal.	Station.	Highest.	Date.	Station.	Lowest.	Date.	Section average.	Departure from the normal.	Station.	Amount.	Station.	Amount.
Alabama	79.2	− 0.6	Newbern	100	21†	Riverton	49	5	5.68	+ 1.19	Alaga	11.25	Flomaton	1.91
Arizona	77.7	− 2.4	Maricopa	117	8	Flagstaff	32	19	2.18	+ 0.08	Bisbee	10.15	3 stations	T.
Arkansas	78.7	− 0.4	Bee Ranch	105	27	Bergman	45	4†	3.30	− 0.17	White Cliffs	10.24	Dodd City	0.93
California	70.2	− 2.6	Indio	115	7	Madeline	20	29	0.06	− 0.02	Nellie	1.05	200 stations	0.00
Colorado	63.0	− 2.0	Eads	103	26	Silverton	23	25	1.84	+ 0.13	Cope	6.44	Nast	0.00
Florida	81.5	+ 0.2	3 stations	100	20†	Marianna	60	29	5.81	− 1.84	Apalachicola	14.09	Hypoluxo	1.19
Georgia	79.1	− 0.2	Dublin	101	31	Diamond	52	5	4.91	− 0.69	Bainbridge	10.00	Harrison	0.81
Hawaii (July)	73.7	.....	Mahukona	94	10	Humuula	36	2	3.53	.....	Hakalau	20.29	4 stations	0.00
Idaho	63.3	− 3.7	Glenns Ferry	105	24	Roseberry	17	30	1.32	+ 1.00	Clarks Fork	3.98	.....do	T.
Illinois	72.7	− 1.2	3 stations	100	28†	Lanark	39	4	4.02	+ 0.81	Alexander	8.38	Monmouth	1.10
Indiana	71.8	− 1.7	Judyville	102	26	Huntingburg	39	5	5.35	+ 2.15	Vevay	12.00	Hammond	1.65
Iowa	71.0	− 0.8	8 stations	101	25†	4 stations	40	3†	3.78	− 0.21	Fayette	7.90	Washington	0.89
Kansas	77.5	+ 0.3	2 stations	110	24†	Blakeman	47	9	4.15	+ 0.79	Cimarron	9.82	Richfield	1.34
Kentucky	73.7	− 2.0	.....do	98	18†	Greensburg	43	5	4.71	+ 1.37	Farmers	8.22	Paducah	1.50
Louisiana	81.3	− 0.1	Liberty Hill	104	21	Laark	51	5	5.89	+ 1.13	Donaldsonville	13.50	Robeline	1.05
Maryland and Del	71.7	− 1.4	Cambridge, Md	99	19	Deer Park, Md	36	5	2.68	− 1.71	State Sanat'um, Md	6.26	Annapolis, Md	1.02
Michigan	63.1	− 3.3	Allegan	96	25	Seney	28	16	4.14	+ 1.35	Iron River	8.65	Cassopolis	1.35
Minnesota	63.8	− 2.4	Beardsley	100	25	5 stations	32	2†	3.92	+ 0.61	New London	7.29	Ely	1.45
Mississippi	80.0	− 0.4	Charleston	101	19	2 stations	53	5	5.26	+ 0.97	McNeill	10.24	Bay Springs	1.10
Missouri	76.2	+ 0.1	2 stations	104	19†	Louisiana	41	5	4.19	+ 0.75	Louisiana	8.70	Olden	1.40
Montana	61.3	− 3.3	Ryegate	98	22	Bowen	11	30	2.12	+ 1.18	Glasgow	5.12	Forsyth	0.28
Nebraska	71.7	− 0.7	North Loup	107	25	Curly	38	9	3.22	+ 0.14	Wakefield	7.88	Ravenna	0.58
Nevada	67.7	− 2.3	Jean	110	8	Quin River Ranch	23	30	0.35	− 0.20	Bishop	1.56	8 stations	0.00
New England	63.3	− 2.5	Bridgeport, Conn	92	14	Norfolk, Mass	29	31	4.03	+ 0.12	Patten, Me	11.28	Boston, Mass	1.94
New Jersey	70.0	− 2.0	2 stations	95	13†	Layton	35	31	3.42	− 1.30	Charlotteburg	7.62	Vineland	1.19
New Mexico	70.2	− 0.6	Artesia	104	10	Elizabethtown	29	7	2.86	+ 0.34	Berino	7.05	Los Lunas (near)	0.10
New York	64.0	− 2.7	Bedford	94	15†	2 stations	30	30†	3.97	+ 0.31	Liberty	8.98	Little Falls	2.04
North Carolina	75.1	− 0.3	Elizabeth City	104	13	Banners Elk	38	4	2.77	− 3.23	Snow Hill	6.93	Edenton	0.40
North Dakota	63.4	− 2.6	Medora	118	27†	Medora	32	15	2.95	+ 0.67	McHenry	6.13	Haley	1.08
Ohio	69.2	− 2.3	2 stations	95	18	3 stations	40	4†	4.08	+ 0.90	Peebles	7.90	Frankfort	1.44
Oklahoma	80.2	− 0.6	Jefferson	110	31	Goodwell	49	1	3.29	+ 0.54	Webbers Falls	8.15	Blackburn	0.79
Oregon	63.8	− 1.8	Blalock	106	23	Austin	20	30†	1.89	+ 1.32	Glenora	8.82	Grants Pass	0.03
Pennsylvania	67.1	− 2.5	2 stations	93	18†	Pocono Lake	36	6†	5.02	+ 1.03	Williamsport	9.65	George School	1.68
Porto Rico	78.7	− 0.5	Rio Blanco	96	10	Maricao	55	14	5.90	− 2.28	San German	16.52	Vieques	0.72
South Carolina	79.2	+ 0.4	2 stations	104	20	3 stations	54	5†	3.69	− 2.86	Walterboro	6.75	Santue	1.02
South Dakota	68.1	− 2.0	Kennebec	105	25	Frederick	34	3	3.34	+ 0.94	Fort Meade	9.15	Ellingson	0.88
Tennessee	75.9	− 0.6	Cedar Hill	99	30	Mountain City	43	5	4.09	+ 0.44	Chattanooga	8.88	Worsham	1.63
Texas	83.7	+ 1.2	2 stations	109	2†	Romero	54	9	2.49	+ 0.08	Longview	15.28	15 stations	0.00
Utah	67.9	− 2.1	Low	103	25	Woodruff	24	19	0.98	− 0.17	Woodruff	3.23	Milford	0.00
Virginia	72.4	− 1.4	4 stations	98	13	Hot Springs	32	2	2.15	− 2.47	Elk Knob	5.03	Catawba	0.35
Washington	63.4	− 2.2	Hanford	106	23	Snyders Ranch	27	29	2.84	+ 2.18	Yale	9.30	Lost Creek	0.18
West Virginia	69.3	− 2.4	Doane	95	31	Bayard	35	5	3.64	− 0.29	Valley Fork	11.70	Burlington	0.25
Wisconsin	63.9	− 3.2	Darlington (No. 2)	96	25	Deerskin Dam	26	29	5.70	+ 2.50	Koepenick	9.45	Racine	1.80
Wyoming	59.7	− 1.9	Casper	109	26	Fountain, Y. N. P.	14	30	2.09	+ 0.51	Riverton	9.12	Centential	0.29

† Other dates also.

TABLE I.—*Climatological data for United States Weather Bureau stations, August, 1912.*

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air in degrees Fahrenheit.									Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.				Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.					
New England.							**65.2**	**— 2.0**										**79**	**2.96**	**— 0.9**								**6.0**		
Eastport	76	67	85	29.82	29.90	— .06	58.8	— 0.9	74	25	65	45	31	52	22	54	52	84	3.76	+ 0.5	14	5,647	s.	26	s.	25	3	17	11	6.6	.....	.....
Greenville	1,070	6	....	28.78	29.92	.....	58.5	.....	83	14	67	40	17	50	27	.....	.....	.....	5.38	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portland, Me	103	81	117	29.82	29.94	— .04	62.8	— 3.4	88	25	70	47	31	56	28	58	55	79	2.26	— 1.3	13	5,946	s.	31	nw.	30	10	10	11	5.8	.....	.....
Concord	288	70	79	29.62	29.93	— .05	64.5	— 2.1	87	25	75	38	31	54	30	.....	.....	.....	3.39	— 0.4	13	3,540	nw.	23	w.	25	8	16	7	5.5	.....	.....
Burlington	404	11	48	29.49	29.92	— .05	62.3	— 3.8	82	11	70	44	17	54	27	.....	.....	.....	2.55	— 1.5	15	6,274	s.	30	s.	10	3	11	17	7.0	.....	.....
Northfield	876	16	60	29.02	29.95	— .03	59.6	— 3.3	83	11	70	36	31	49	33	56	54	86	3.46	— 0.5	17	4,253	s.	22	sw.	25	3	9	19	7.7	.....	.....
Boston	125	115	188	29.81	29.94	— .05	69.0	+ 0.1	90	25	77	49	31	61	24	62	58	72	1.94	— 2.1	8	6,746	nw.	34	w.	23	6	17	8	5.8	.....	.....
Nantucket	12	14	90	29.95	29.96	— .03	67.0	— 1.0	82	27	73	53	31	61	21	63	61	86	2.87	— 0.2	7	9,476	sw.	36	s.	18	11	14	6	4.7	.....	.....
Block Island	26	11	46	29.92	29.95	— .04	67.0	— 1.7	81	15	71	51	31	62	16	63	62	86	3.18	— 0.3	8	10,026	sw.	36	se.	18	11	12	8	5.1	.....	.....
Narragansett	....	9	....	.....	.....	.....	66.1	— 2.4	83	15	74	41	28	58	28	.....	.....	.....	3.39	.....	6	.....	sw.	.....	.....	.....	9	16	6	.....	.....	.....
Providence	160	141	165	29.79	29.96	— .03	67.8	— 3.2	87	15	76	46	31	60	23	62	59	75	2.90	— 1.2	7	6,734	nw.	47	nw.	23	7	20	4	5.4	.....	.....
Hartford	159	122	140	29.78	29.95	— .04	68.2	— 0.7	89	14	77	45	31	59	25	61	57	73	3.02	— 1.5	11	4,648	s.	31	sw.	3	4	17	10	6.2	.....	.....
New Haven	106	116	155	29.84	29.95	— .04	69.0	— 1.1	89	14	78	46	31	60	23	62	59	74	3.22	— 1.8	12	5,718	s.	37	sw.	3	7	15	9	5.8	.....	.....
Middle Atlantic States.							**71.2**	**— 1.3**										**74**	**2.96**	**— 0.4**								**5.5**		
Albany	97	102	115	29.83	29.94	— .04	68.0	— 1.5	88	25	77	43	31	59	26	60	56	71	3.00	— 1.0	11	4,666	s.	24	se.	10	9	19	3	4.7	.....	.....
Binghamton	871	78	88	29.04	29.96	— .03	64.0	— 3.5	87	25	74	40	31	54	32	.....	.....	.....	7.72	+ 4.4	19	3,397	w.	22	sw.	22	0	11	20	8.0	.....	.....
New York	365	414	454	29.63	29.96	— .04	70.7	— 1.5	89	26	78	53	31	64	19	63	58	69	2.77	— 1.8	12	11,025	nw.	49	w.	23	4	20	7	6.1	.....	.....
Harrisburg	374	94	104	29.59	29.98	— .03	70.3	— 1.8	89	18	78	53	6	62	22	63	59	73	3.03	— 1.2	14	3,920	w.	31	sw.	13	4	14	13	6.1	.....	.....
Philadelphia	117	123	184	29.85	29.97	— .03	73.0	— 0.8	90	13	81	55	31	65	22	65	60	67	1.71	— 2.9	10	6,304	nw.	28	se.	2	6	19	6	5.4	.....	.....
Scranton	805	111	119	29.13	29.98	— .02	66.6	— 2.7	86	13	76	45	31	57	29	61	58	77	4.91	+ 0.7	14	4,528	s.	39	w.	18	5	13	13	6.6	.....	.....
Atlantic City	52	37	48	29.92	29.98	— .02	71.6	— 1.0	90	14	78	53	28	65	22	66	63	77	3.21	— 1.1	8	5,192	s.	22	s.	11	7	16	8	5.4	.....	.....
Cape May	18	13	49	29.98	30.00	— .00	72.2	— 1.2	90	14	80	53	31	65	22	67	64	81	1.93	— 2.3	9	5,065	s.	30	w.	13	5	24	2	5.1	.....	.....
Baltimore	123	100	113	29.85	29.98	— .03	74.4	— 0.3	92	18	82	57	5	66	21	66	62	69	3.25	— 1.0	10	4,578	sw.	25	sw.	19	9	12	10	5.3	.....	.....
Washington	112	62	85	29.86	29.97	— .04	73.4	— 1.1	92	18	83	53	6	64	27	66	62	72	1.50	— 2.9	10	3,773	s.	28	n.	19	10	14	7	5.1	.....	.....
Lynchburg	681	83	88	29.26	29.99	— .03	75.2	+ 0.4	95	14	86	51	2	65	33	67	63	72	1.28	— 3.0	7	2,568	sw.	34	se.	26	6	22	3	4.8	.....	.....
Mount Weather	1,725	10	54	28.20	29.96	— .05	67.8	— 1.6	84	18	75	50	28	61	18	61	58	75	4.54	+ 0.9	10	9,874	w.	38	nw.	2	16	19	9	5.7	.....	.....
Norfolk	91	102	111	29.91	30.00	— .00	76.8	+ 0.1	96	19	84	58	4	69	24	69	66	75	2.12	— 3.8	11	5,973	s.	33	nw.	19	12	15	4	4.4	.....	.....
Richmond	144	189	197	29.85	29.99	— .02	76.4	— 1.1	97	19	87	55	5	66	31	67	63	70	1.49	— 2.9	9	4,841	s.	40	sw.	13	10	14	7	5.1	.....	.....
Wytheville	2,293	40	47	27.71	30.02	+ .01	68.3	— 2.2	84	31	78	45	5	59	33	63	61	85	1.98	— 2.6	16	3,461	w.	23	w.	2	6	20	5	5.3	.....	.....
South Atlantic States.							**78.4**	**+0.6**										**80**	**3.87**	**— 2.3**								**5.2**		
Asheville	2,255	53	75	27.75	30.05	+ .03	70.0	— 0.5	87	31	80	51	5	60	28	64	62	83	1.88	— 2.9	13	3,961	nw.	31	nw.	21	6	17	8	5.8	.....	.....
Charlotte	773	68	76	29.21	30.03	+ .01	76.4	— 0.2	95	31	86	55	5	67	24	68	65	76	1.87	— 3.7	10	4,162	sw.	30	w.	14	6	17	8	5.7	.....	.....
Hatteras	11	12	47	30.00	30.01	+ .01	77.9	— 0.3	89	20	83	67	4	73	21	73	71	84	2.80	— 3.0	10	9,515	sw.	42	sw.	23	9	18	4	4.5	.....	.....
Manteo	12	12	46	.....	.....	.....	77.4	.....	95	14	86	58	31	69	.....	.....	.....	.....	3.25	— 2.7	6	.....	sw.	.....	.....	.....	8	7	6	.....	.....	.....
Raleigh	376	103	110	29.61	30.00	— .01	77.6	+ 0.8	96	19	88	56	5	68	25	68	64	71	2.86	— 3.0	8	5,540	w.	37	nw.	26	9	17	5	4.8	.....	.....
Wilmington	78	81	91	29.94	30.03	+ .03	78.8	+ 1.2	94	20	87	60	5	71	22	73	71	85	2.60	— 3.9	11	5,158	sw.	30	w.	22	7	22	2	4.6	.....	.....
Charleston	48	11	92	29.99	30.04	+ .03	81.2	+ 0.9	97	21	88	65	5	74	25	74	72	80	2.77	— 4.2	11	6,659	sw.	34	e.	16	10	11	10	5.5	.....	.....
Columbia, S. C	351	41	57	29.66	30.03	+ .02	79.4	— 0.1	98	31	89	61	6	70	24	71	68	78	4.80	— 2.0	8	4,461	sw.	33	s.	18	6	17	8	5.5	.....	.....
Augusta	180	89	97	29.84	30.03	+ .02	80.0	+ 1.1	98	31	89	65	5	71	23	72	69	79	6.14	+ 0.6	11	3,650	s.	26	w.	25	8	13	10	5 5	.....	.....
Savannah	65	150	194	29.98	30.04	+ .03	80.5	+ 1.1	97	31	89	64	5	72	22	73	72	84	8.27	+ 0.8	12	6,985	sw.	37	w.	21	8	10	13	5.9	.....	.....
Jacksonville	43	96	129	30.01	30.06	+ .05	81.8	+ 1.7	94	31	89	69	6	74	21	75	74	85	5.32	— 0.9	13	5,685	sw.	38	sw.	24	14	10	7	4.2	.....	.....
Florida Peninsula.							**82.8**	**+ 1.1**										**77**	**3.18**	**— 3.8**								**5.3**		
Key West	22	10	53	30.01	30.03	+ .05	83.6	— 0.2	90	24	89	71	13	79	18	77	74	75	1.69	— 3.0	7	5,215	e.	18	se.	25	5	22	4	5.2	.....	.....
Miami	25	37	72	30.03	30.06	.....	83.2	+ 1.2	91	1	89	69	29	77	21	76	74	75	2.93	— 4.7	11	5,441	se.	28	se.	29	3	19	9	6.4	.....	.....
Sand Key	23	39	72	29.98	30.01	+ .03	82.2	.....	89	1	85	71	29	79	15	77	75	77	1.32	.....	9	8,554	e.	39	se.	20	4	20	7	5.4	.....	.....
Tampa	35	79	96	30.03	30.06	+ .06	82.0	+ 2.0	94	10	90	69	11	74	25	75	73	80	4.93	— 3.7	11	4,043	ne.	29	se.	29	7	20	4	4.8	.....	.....
Titusville	25	6	....	30.02	30.07	.....	82.4	+ 1.4	97	21	92	69	6	73	25	.....	.....	.....	10.00	.....	20	.....	e.	.....	.....	.....	12	14	5	4.5	.....	.....
East Gulf States.							**79.6**	**+ 0.4**										**82**	**4.90**	**0.0**								**5.7**		
Atlanta	1,174	190	216	28.84	30.05	+ .04	76.9	+ 0.8	91	31	85	60	5	69	23	69	67	77	3.70	— 0.8	9	6,228	sw.	37	w.	25	8	14	9	5.4	.....	.....
Macon	370	78	87	29.65	30.04	+ .03	79.7	+ 1.5	96	31	89	65	6	71	24	72	70	80	2.75	— 1.5	12	3,277	s.	26	sw.	22	6	14	11	5.9	.....	.....
Thomasville	273	8	57	29.76	30.05	+ .05	80.4	— 0.6	95	16	90	68	5	71	24	73	72	89	7.12	+ 2.1	16	2,827	sw.	19	sw.	1	3	14	14	6.3	.....	.....
Pensacola	56	140	183	29.98	30.04	+ .06	80.1	— 0.9	91	20	86	69	27	74	20	75	73	83	5.24	— 1.9	15	7,494	sw.	32	sw.	3	4	16	11	6.1	.....	.....
Anniston	741	9	57	29.28	30.06	+ .07	77.4	+ 1.0	94	31	87	60	2	68	28	.....	.....	.....	2.74	— 1.7	12	2,901	s.	33	w.	9	7	14	10	5.9	.....	.....
Birmingham	700	11	48	29.30	30.05	+ .06	78.0	— 1.8	92	20	87	61	5	69	23	71	69	83	5.60	+ 1.1	13	3,460	s.	36	w.	9	11	14	6	4.9	.....	.....
Mobile	57	98	106	29.98	30.04	+ .06	81.0	+ 1.3	94	20	89	69	8	73	21	74	73	82	8.25	+ 1.4	17	4,451	sw.	30	nw.	21	6	19	6	5.5	.....	.....
Montgomery	223	100	112	29.80	30.05	+ .06	80.0	+ 0.3	95	31	89	65	5	71	23	73	71	82	4.58	+ 0.3	10	3,453	sw.	30	w.	10	8	15	8	5.5	.....	.....
Meridian	375	84	93	29.64	30.02	+ .04	79.4	+ 0.9	94	31	89	59	5	70	25	72	70	81	4.20	+ 0.6	11	2,779	sw.	36	sw.	10	5	20	6	5.6	.....	.....
Vicksburg	247	62	74	29.76	30.04	+ .06	79.8	+ 0.2	92	20	88	60	5	71	24	73	71	82	4.81	+ 1.3	12	3,814	se.	30	sw.	9	10	12	9	5.3	.....	.....
New Orleans	51	90	121	29.97	30.02	+ .04	82.9	+ 1.9	94	23	90	72	5	76	20	76	73	80	4.93	— 0.7	15	4,440	s.	31	s.	23	1	20	10	6.7	.....	.....
West Gulf States.							**82.0**	**+ 1.0**										**74**	**3.09**	**+ 0.1**								**3.9**		
Shreveport	249	77	84	29.74	30.00	+ .03	80.2	— 1.2	94	21	89	63	5	71	26	74	71	81	10.89	+ 8.6	9	3,379	se.	35	n.	3	16	8	7	4.4	.....	.....
Bentonville	1,303	11	44	28.64	29.97	.00	76.9	+ 0.4	97	27	88	54	4	66	31	.....	.....	.....	2.61	— 1.4	7	3,338	s.	16	s.	11	25	5	1	2.5	.....	.....
Fort Smith	457	79	94	29.49	29.96	— .01	80.4	+ 1.0	101	28	91	60	5	70	30	70	67	73	2.76	— 0.9	8	4,480	e.	44	sw.	2	16	12	3	3.7	.....	.....
Little Rock	357	139	147	29.62	29.99	+ .01	79.0	— 0.2	94	21	88	58	5	70	26	71	69	78	4.98	+ 1.3	11	5,818	sw.	33	sw.	11	15	7	9	4.9	.....	.....
Brownsville	57	4	....	.....	.....	.....	84.0	.....	96	28	94	70	28	74	26	.....	.....	.....	0.12	.....	5	.....	se.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corpus Christi	20	69	77	29.94	29.96	+ .03	83.1	+ 1.0	91	23	88	75	29	78	14	77	76	82	0.04	— 2.2	2	11,468	se.	42	se.	8	28	3	0	2.2	.....	.....
Fort Worth	670	106	114	29.23	29.93	— .01	82.0	— 0.9	102	3	91	65	6	73	28	71	66	64	6.56	+ 4.7	8	7,068	s.	34	nw.	1	14	12	5	4.4	.....	.....
Galveston	54	106	112	29.94	30.01	+ .05	83.8	+ 1.2	90	4	88	70	14	80	16	77	75	77	1.59	— 3.4	9	7,693	s.	26	se.	14	15	15	1	3.7	.....	.....
Houston	138	111	121	29.84	29.98	.....	83.6	+ 0.7	96	22	92	70	17	75	21	.....	.....	.....	2.59	.....	11	5,105	se.	26	s.	30	6	18	7	5.6	.....	.....
Palestine	510	64	72	29.45	29.97	.00	82.4	+ 1.9	96	21	92	66	6	73	25	73	71	75	0.46	— 1.8	3	5,271	s.	34	ne.	2	11	18	2	4.6	.....	.....
San Antonio	701	80	91	29.22	29.93	.00	86.0	+ 4.0	100	4	97	70	16	75	26	73	68	65	0.29	— 2.4	3	4,801	se.	19	s.	8	20	11	0	3.0	.....	.....
Taylor	583	55	63	29.38	29.99	+ .04	84.8	+ 3.1	99	3	96	71	16	74	25	.....	.....	.....	0.75	—.1.7	5	6,758	s.	28	s.	22	12	19	0	4.2	.....	.....
Ohio Valley and Tennessee.							**73.3**	**— 1.5**										**78**	**4.00**	**+ 0.6**								**5.9**		
Chattanooga	702	189	213	29.25	30.05	+ .05	76.6	+ 0.1	92	31	86	58	5	67	27	69	67	80	8.88	+ 5.1	15	4,610	sw.	37	nw.	26	7	21	3	5.4	.....	.....
Knoxville	996	93	100	28.99	30.02	+ .01	75.4	+ 0.7	92	31	85	58	5	66	28	68	66	79	2.66	— 1.3	10	3,389	sw.	38	nw.	21	2	15	14	6.8	.....	.....
Memphis	399	76	97	29.61	30.03	+ .05	78.6	— 0.6	92	20	86	58	4	71	23	72	70	78	3.41	+ 0.2	9	5,661	sw.	28	sw.	7	14	8	9	4.4	.....	.....
Nashville	546	108	191	29.45	30.03	+ .03	76.7	— 1.1	92	19	86	56	4	68	27	69	66	77	3.06	— 0.4	11	5,345	sw.	46	nw.	20	12	13	6	4.7	.....	.....
Lexington	989	75	102	28.96	30.00	— .01	72.2	— 2.4	88	17	81	51	5	64	28	.....	.....	.....	3.23	— 0.3	15	6,383	sw.	43	nw.	29	7	13	11	5.9	.....	.....
Louisville	525	111	132	29.43	30.01	+ .01	75.4	— 1.1	93	18	84	52	4	66	31	68	64	73	5.06	+ 1.6	12	5,206	sw.	36	sw.	12	8	16	7	5.4	.....	.....
Evansville	431	72	82	29.53	29.99	.00	75.3	— 1.7	92	19	84	53	4	67	26	69	66	76	4.00	+ 0.8	13	4,852	sw.	30	s.	8	11	19	1	4.4	.....	.....
Indianapolis	822	154	164	29.10	29.98	— .02	72.0	— 1.6	90	18	81	49	4	63	30	65	62	76	3.12	— 0.2	11	6,539	sw.	40	sw.	10	6	15	10	6.2	.....	.....
Cincinnati	628	152	160	29.33	29.99	— .02	73.8	— 1.7	92	18	82	52	4	65	31	68	66	81	5.00	+ 1.7	14	4,304	sw.	26	nw.	13	2	18	11	6.3	.....	.....
Columbus	824	173	222	29.12	29.99	— .02	70.7	— 2.3	90	31	80	49	4	62	26	64	61	77	2.25	— 1.0	15	7,269	sw.	42	nw.	19	4	12	15	6.6	.....	.....
Dayton	899	181	216	29.03	29.96	.....	71.0	— 2.6	90	18	80	48	5	62	27	65	63	80	6.64	+ 3.6	14	6,989	sw.	44	nw.	28	2	11	18	7.7	.....	.....
Pittsburgh	842	353	410	29.09	29.98	— .03	68.8	— 3.7	87	18	77	48	28	61	24	62	59	74	2.39	— 0.8	13	7,521	sw.	55	nw.	18	4	17	10	6.0	.....	.....
Parkersburg	638	77	84	29.36	30.02	+ .01	72.2	— 1.1	91	31	81	49	5	64	26	66	64	82	3.05	— 0.5	12	3,686	s.	22	s.	9	7	13	11	6.0	.....	.....
Elkins	1,940	41	50	28.01	30.02	.00	67.0	— 1.4	86	31	77	42	5	56	31	61	60	85	3.30	— 0.4	15	2,224	w.	19	w.	26	4	10	17	7.0	.....	.....

TABLE I.—*Climatological data for United States Weather Bureau stations, August, 1912*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.					
Lower Lake region.							66.2	— 3.4											78	3.89	+ 0.9									6.2		
Buffalo	767	178	206	29.12	29.94	— .05	64.8	— 4.0	87	13	71	46	30	59	26		60	57	76	4.00	+ 1.0	16	9,894	sw.	50	sw.	26	1	15	15	7.1		
Canton	448	10	71	29.46	29.93	.....	61.8	— 6.0	82	11	71	38	31	52	30		.....	.....	.....	4.44	+ 1.8	16	5,788	sw.	44	sw.	23	2	11	18	7.3		
Oswego	335	76	91	29.57	29.93	— .06	64.2	— 4.6	81	11	70	46	31	58	23		60	57	78	2.81	+ 0.1	11	5,892	s.	25	nw.	26	5	13	13	6.2		
Rochester	523	86	102	29.40	29.96	— .03	65.2	— 3.1	84	14	73	47	17	58	25		59	56	78	3.13	+ 0.2	18	5,080	w.	30	nw.	26	4	14	13	6.7		
Syracuse	597	97	113	29.32	29.96	— .03	64.6	— 4.0	85	13	72	45	30	57	22		59	55	75	2.97	— 0.4	12	6,978	s.	37	nw.	26	4	17	10	6.3		
Erie	714	92	102	29.20	29.96	— .05	66.2	— 3.7	83	26	72	51	30	60	23		61	58	78	5.90	+ 2.6	16	6,620	s.	30	w.	26	1	13	17	7.1		
Cleveland	762	190	201	29.15	29.97	— .04	67.6	— 2.8	87	25	74	52	28	61	25		63	60	80	4.54	+ 1.4	16	9,094	se.	54	sw.	26	1	14	16	7.0		
Sandusky	629	62	70	29.28	29.96	— .05	69.0	— 2.5	89	25	76	53	28	62	28		63	60	77	3.57	+ 0.2	13	5,537	sw.	30	n.	21	5	16	10	6.2		
Toledo	628	208	246	29.29	29.96	— .04	68.8	— 2.1	91	31	77	49	3	60	29		63	61	79	3.48	+ 0.8	14	9,383	sw.	39	nw.	22	11	13	7	4.8		
Fort Wayne	856	113	124	29.05	29.96	.....	69.0	— 2.1	91	31	78	47	3	59	31		63	61	79	5.04	.....	13	5,992	sw.	40	nw.	17	11	15	5	4.3		
Detroit	730	218	256	29.18	29.96	— .05	67.4	— 3.0	90	31	75	50	3	59	29		62	59	79	4.05	+ 1.3	13	7,938	n.	33	w.	26	8	14	9	5.5		
Upper Lake region.							62.7	— 3.6											83	4.19	+ 1.2									6.8		
Alpena	609	13	92	29.29	29.96	— .04	61.0	— 2.8	86	13	68	44	30	53	30		57	55	86	5.12	+ 1.8	12	7,048	nw.	33	nw.	31	4	14	13	6.3		
Escanaba	612	48	82	29.28	29.93	— .06	59.3	— 5.2	83	13	66	42	15	53	21		56	54	82	7.46	+ 3.8	17	6,062	s.	28	ne.	2	3	9	19	7.4		
Grand Haven	632	54	92	29.26	29.92	— .07	64.4	— 3.4	84	31	71	47	5	58	26		61	59	83	3.43	— 0.2	11	6,711	s.	32	se.	28	10	14	7	5.0		
Grand Rapids	675	70	87	29.18	29.94	— .06	66.9	— 3.1	90	31	76	46	3	58	32		62	59	81	3.16	+ 0.6	10	3,881	w.	22	w.	14	7	12	12	6.3		
Lansing	863	11	62	29.01	29.94	.....	65.7	— 2.9	89	31	75	46	3	56	38		61	59	84	2.19	— 0.4	14	3,729	nw.	22	s.	28	9	7	15	6.3		
Houghton	684	62	72	29.22	29.94	— .03	57.6	— 5.7	77	12	64	45	23	51	24		.....	.....	.....	5.31	+ 2.4	16	5,792	e.	28	w.	13	3	9	19	7.6		
Marquette	734	77	116	29.17	29.96	— .02	57.7	— 5.8	80	13	63	46	30	52	24		56	54	91	5.83	+ 3.0	19	5,627	nw.	29	nw.	26	1	13	17	7.6		
Port Huron	638	78	120	29.26	29.95	— .05	65.0	— 2.3	88	26	72	48	16	57	31		60	58	82	3.67	+ 1.0	14	6,654	s.	30	nw.	26	4	16	11	6.4		
Sault Ste. Marie	614	11	61	29.27	29.96	— .03	58.0	— 2.6	80	13	65	41	16	51	28		55	53	86	6.37	+ 3.2	14	5,587	nw.	36	sw.	13	2	9	20	7.8		
Chicago	823	140	310	29.08	29.95	— .05	71.0	— 0.2	95	31	77	55	4	64	27		65	62	78	3.59	+ 0.7	9	8,235	sw.	32	sw.	24	8	15	8	5.5		
Milwaukee	681	119	133	29.20	29.94	— .06	67.0	— 1.7	89	24	74	52	4	60	28		61	58	78	2.14	— 0.7	10	6,378	ne.	42	e.	28	8	12	11	6.0		
Green Bay	617	49	86	29.26	29.92	— .07	63.8	— 3.2	86	24	71	47	4	57	28		59	57	82	3.92	+ 0.8	14	6,544	n.	29	n.	26	0	11	20	8.1		
Duluth	1,133	11	47	28.74	29.95	— .02	57.4	— 7.5	78	21	64	42	2	51	22		54	53	87	3.25	— 0.3	15	7,771	ne.	32	ne.	28	3	11	17	7.5		
North Dakota.							64.2	— 2.6											78	3.50	+ 1.2									5.5		
Moorhead	940	8	57	28.94	29.94	— .02	64.4	— 1.5	94	25	76	41	3	53	40		58	55	80	5.84	+ 2.7	14	4,618	se.	23	nw.	13	14	8	9	4.3		
Bismarck	1,674	4	57	28.18	29.94	.00	66.2	— 1.9	92	23	78	46	3	54	38		59	56	77	2.33	+ 0.4	12	6,753	nw.	50	nw.	11	12	14	5	4.8		
Devils Lake	1,482	11	44	28.36	29.92	— .02	61.6	— 3.5	84	23	71	42	2	52	33		57	54	84	2.99	+ 0.2	15	6,417	se.	34	e.	27	4	12	15	6.5		
Williston	1,896	40	47	27.93	29.88	— .05	64.6	— 3.3	87	23	75	45	26	54	29		57	53	72	2.84	+ 1.5	8	5,922	se.	28	nw.	12	6	16	9	6.3		
Upper Mississippi Valley.							71.7	— 1.2											76	3.73	+ 0.5									5.3		
Minneapolis	918	102	208	.....	.....	.....	66.8	.....	91	25	75	47	2	58	26		.....	.....	.....	5.56	+ 1.9	13	7,747	n.	54	e.	19	8	12	11	5.9		
St. Paul	940	203	212	29.02	29.91	— .06	66.5	— 3.0	91	25	75	47	2	58	27		59	55	72	4.40	+ 0.9	13	8,089	n.	49	e.	19	9	15	7	5.2		
La Crosse	714	11	48	29.15	29.91	— .07	67.8	— 2.2	95	25	77	45	4	58	31		.....	.....	.....	3.33	— 0.1	13	2,790	s.	14	s.	13	5	13	13	6.5		
Madison	974	70	78	28.91	29.93	— .06	67.3	— 2.3	89	25	76	50	4	59	27		62	59	79	3.16	0.0	10	5,552	sw.	43	w.	18	9	15	7	5.6		
Charles City	1,015	10	49	28.87	29.93	— .04	68.2	— 2.5	92	31	79	44	3	58	32		63	60	79	4.33	+ 0.9	14	4,287	nw.	34	w.	31	4	14	13	6.8		
Davenport	606	71	79	29.28	29.93	— .05	72.8	— 0.2	95	31	82	48	4	63	27		65	61	73	2.77	— 0.9	7	4,893	sw.	24	sw.	24	11	11	9	4.9		
Des Moines	861	84	101	29.02	29.90	— .07	72.7	— 0.3	97	25	82	52	4	63	33		65	62	73	3.52	— 0.1	12	5,020	sw.	32	ne.	12	12	9	10	5.1		
Dubuque	698	81	96	29.20	29.93	— .05	69.7	— 2.3	92	25	78	47	4	61	27		63	60	75	6.79	+ 3.8	10	3,682	s.	20	nw.	18	9	10	12	5.9		
Keokuk	614	64	78	29.28	29.94	— .04	74.0	— 0.6	93	25	83	52	4	65	27		65	65	77	2.50	— 0.7	12	4,720	sw.	28	w.	28	14	9	8	4.6		
Cairo	350	87	93	29.60	29.97	— .02	76.4	— 0.6	93	28	85	54	4	68	25		71	69	82	2.28	— 0.6	11	5,542	sw.	36	w.	29	14	9	8	4.6		
La Salle	536	56	64	29.39	29.96	— .03	71.1	— 0.9	95	31	81	46	4	61	28		.....	.....	.....	4.35	+ 1.5	6	4,909	sw.	25	sw.	24	9	13	9	5.4		
Peoria	609	11	45	29.30	29.96	— .03	72.4	— 0.1	95	31	83	44	4	62	29		65	62	78	1.67	— 1.3	10	4,279	s.	22	s.	24	8	16	7	5.2		
Springfield, Ill	644	10	91	29.28	29.96	— .03	74.2	+ 0.2	94	28	84	50	5	65	29		.....	.....	.....	2.87	+ 0.1	14	5,532	sw.	40	sw.	25	14	7	10	4.8		
Hannibal	534	74	109	29.37	29.93	— .05	74.4	— 0.6	95	28	84	50	5	65	29		.....	.....	.....	5.71	+ 2.3	15	5,976	sw.	40	w.	28	15	8	8	4.3		
St. Louis	567	208	317	29.36	29.96	— .03	76.2	— 1.0	95	28	84	55	3	68	25		68	64	72	2.65	0.0	14	6,780	s.	35	nw.	28	12	11	8	4.8		
Missouri Valley.							74.1	+ 0.3											68	3.80	+ 0.4									3.8		
Columbia, Mo	784	11	84	29.13	29.94	— .03	75.8	+ 1.1	97	28	86	51	4	66	27		.....	.....	.....	4.91	+ 1.9	15	4,943	s.	39	sw.	13	16	6	9	4.5		
Kansas City	963	161	181	28.91	29.91	— .06	77.2	+ 1.4	98	28	86	58	3	68	25	68	64	69	3.75	— 1.0	10	7,763	s.	42	n.	7	19	4	8	3.4		
St. Joseph	967	11	49	28.89	29.90	.....	77.0	.....	99	28	87	55	3	67	29	68	64	72	4.23	.....	11	5,207	s.	29	nw.	28	17	7	7	3.8		
Springfield, Mo	1,324	98	104	28.60	29.97	.00	76.3	+ 1.5	94	28	86	53	4	66	23	67	63	70	3.00	— 1.3	5	6,362	s.	34	nw.	20	23	2	6	2.5		
Iola	984	11	50	28.91	29.92	— .04	79.1	+ 2.8	100	28	91	54	4	67	34		.....	.....	.....	3.78	+ 0.3	8	4,698	s.	23	nw.	20	17	13	1	2.9		
Topeka	983	85	101	.....	.....	.....	78.6	+ 2.6	101	28	89	56	4	68	29	.....	.....	.....	.....	3.03	— 1.3	9	6,889	s.	44	w.	20	20	10	1	2.8		
Lincoln	1,189	11	84	28.65	29.88	— .07	75.4	+ 1.1	102	25	87	55	3	64	39	65	60	67	4.16	+ 0.4	10	6,744	e.	46	nw.	12	11	14	6	4.6		
Omaha	1,105	115	121	28.95	29.90	— .06	75.3	+ 0.9	98	25	85	58	9	66	34	65	61	67	4.78	+ 1.2	10	4,951	s.	32	sw.	31	10	10	11	5.3		
Valentine	2,598	47	54	27.26	29.94	.00	69.0	— 2.3	100	25	82	47	9	56	46	59	53	66	2.60	— 0.3	14	6,622	n.	36	nw.	29	13	17	1	3.5		
Sioux City	1,135	94	164	28.72	29.90	— .05	71.4	— 1.2	97	25	82	53	2	61	35	64	60	72	7.03	+ 4.0	13	7,356	nw.	41	nw.	6	19	7	5	3.5		
Pierre	1,572	70	75	28.29	29.93	— .01	71.0	— 2.1	99	27	83	54	9	60	38	60	53	60	3.85	+ 1.8	11	7,110	e.	60	ne.	11	14	10	7	4.6		
Huron	1,306	56	67	28.55	29.92	— .03	68.6	— 0.5	100	25	81	48	14	56	47	60	55	69	2.41	— 0.2	11	6,250	se.	37	n.	11	16	10	5	3.9		
Yankton	1,233	49	57	28.61	29.91	— .04	71.1	— 1.7	96	25	82	53	14	60	37	.....	.....	.....	.....	2.36	— 0.8	8	4,627	ne.	32	w.	6	15	10	6	4.1		
Northern Slope.							64.1	— 2.6											62	1.53	+ 0.3									4.4		
Havre	2,505	11	44	27.29	29.88	— .03	62.6	— 4.3	90	24	74	40	17	51	38	56	52	74	2.24	+ 1.0	12	5,620	sw.	30	sw.	9	11	14	6	5.0		
Miles City	2,371	26	48	27.41	29.92	— .01	68.8	— 2.7	94	24	81	48	13	56	39	59	53	63	1.19	+ 0.2	7	4,080	ne.	28	n.	27	16	12	3	3.4		
Helena	4,221	87	114	25.79	29.91	— .03	62.6	— 3.5	90	24	74	38	30	51	36	51	43	56	1.60	+ 0.9	10	6,110	sw.	44	sw.	9	11	10	10	5.3		
Kalispell	2,962	11	34	26.90	29.92	— .01	59.8	— 3.1	88	24	72	33	30	48	44	51	45	66	1.03	+ 0.1	9	3,217	w.	26	sw.	15	10	13	8	5.1		
Rapid City	3,234	46	50	26.60	29.95	+ .02	67.6	— 1.2	93	27	79	49	3	56	33	57	49	60	2.86	+ 0.8	12	5,189	w.	35	sw.	18	19	7	5	3.5		
Cheyenne	6,088	56	64	24.08	29.92	.00	65.4	— 0.4	89	26	78	41	9	52	38	52	45	58	1.44	0.0	9	6,221	nw.	30	w.	6	8	20	3	4.6		
Lander	5,372	60	68	24.68	29.92	.00	64.1	— 1.6	92	26	80	38	19	48	44	51	42	51	0.52	0.0	7	4,247	w.	46	sw.	27	15	13	3	3.7		
Sheridan	3,790	9	47	26.09	29.93	.....	63.6	.....	89	24	79	41	31	49	43	53	47	64	1.18	.....	11	3,917	se.	34	se.	14	15	8	8	4.4		
Yellowstone Park	6,200	11	48	23.93	29.94	+ .01	55.7	— 5.2	83	26	69	32	30	42	41	46	39	60	1.66	+ 0.6	14	5,353	sw.	48	s.	31	12	10	9	4.6		
North Platte	2,821	11	51	27.05	29.93	— .01	70.7	— 1.5	98	25	84	50	9	58	44	61	57	71	1.27	— 1.2	5	4,302	se.	22	s.	29	13	14	4	4.5		
Middle Slope.							75.6	+ 0.4											66	3.44	+ 1.0									3.8		
Denver	5,291	129	136	24.77	29.92	.00	70.2	— 0.2	94	26	84	47	9	57	41	56	47	54	1.07	— 0.3	8	4,926	sw.	36	ne.	7	13	15	3	4.3		
Pueblo	4,685	80	86	25.31	29.90	— .01	72.0	— 0.1	96	25	86	50	9	58	41	58	51	59	1.85	+ 0.3	7	4,215	se.	31	nw.	30	15	13	3	3.6		
Concordia	1,398	42	50	28.46	29.90	— .05	77.2	+ 0.7	101	25	88	55	1	66	35	67	63	69	5.18	+ 2.4	11	4,826	s.	51	ne.	5	9	16	6	4.8		
Dodge City	2,509	11	51	27.37	29.91	— .02	76.5	0.0	98	26	88	56	9	65	34	66	62	71	5.80	+ 3.2	8	7,260	s.	42	nw.	7	17	10	4	4.0		
Wichita	1,364	139	158	28.50	29.90	— .05	78.2	+ 0.7	100	28	89	58	3	68	30	69	66	71	3.14	0.0	9	9,172	s.	48	nw.	13	17	13	1	3.4		
Oklahoma	1,214	10	47	28.69	29.93	— .01	79.5	+ 1.0	98	27	89	62	9	70	27	70	66	73	3.61	+ 0.4	6	9,657	s.	52	n.	8	20	7	4	2.9		

TABLE I.—*Climatological data for United States Weather Bureau stations, August, 1912*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
Southern Slope.							**81.5**	**+ 2.4**											**62**	**1.86**	**− 0.2**									**3.6**		
Abilene	1,738	10	52	28.16	29.91	− .01	84.1	+ 2.9	100	8	95	64	9	73	30		69	63	56	2.81	+ 0.8	7	7,682	s.	26	s.	11	18	12	1	3.4	.....	.....
Amarillo	3,676	10	49	26.28	29.92	.00	76.4	+ 1.8	97	26	89	55	9	64	32		64	59	64	2.28	− 0.5	7	8,416	sw.	40	nw.	10	21	9	1	3.3	.....	.....
Del Rio	944	8	57	28.93	29.88	− .02	88.6	+ 4.6	106	1	100	74	17	77	27		.....	.....	.....	0.17	− 2.5	1	7,127	se.	32	ne.	23	20	11	0	2.7	.....	.....
Roswell	3,578	9	57	26.37	29.90	+ .02	77.0	+ 0.4	97	11	90	56	30	63	34		64	59	66	2.18	+ 1.3	10	3,725	s.	27	sw.	2	9	20	2	4.9	.....	.....
Southern Plateau.							**75.9**	**− 1.4**											**46**	**0.96**	**− 0.1**									**2.6**		
El Paso	3,762	110	133	26.17	29.83	− .01	77.8	− 0.8	100	8	89	61	30	67	30		63	55	57	2.83	+ 1.1	17	6,431	e.	51	ne.	22	9	20	2	4.2	.....	.....
Santa Fe	7,013	8	56	23.35	29.86	− .03	67.2	+ 0.2	87	26	79	50	9	56	36		53	45	54	1.15	− 1.2	11	4,844	se.	31	sw.	11	13	15	3	4.3	.....	.....
Flagstaff	6,907	8	57	.....	.....	.....	61.2	− 1.6	82	8	75	40	15	47	39		.....	.....	.....	0.61	.....	7	.....	w.	.....	.....	.....	13	15	3	.....	.....	.....
Phoenix	1,108	50	56	28.67	29.79	.00	86.2	− 2.8	108	7	99	69	15	74	36		68	57	44	0.72	− 0.2	4	2,895	e.	40	ne.	12	18	10	3	3.3	.....	.....
Yuma	141	9	58	29.62	29.76	.00	88.8	− 1.3	113	6	104	66	19	74	42		71	62	50	0.14	− 0.2	2	4,430	sw.	26	se.	26	27	4	0	0.9	.....	.....
Independence	3,910	11	42	25.93	29.83	+ .02	74.0	− 2.4	100	7	90	51	29	58	39		53	31	25	0.00	− 0.1	0	4,607	s.	28	s.	28	29	2	0	1.4	.....	.....
Middle Plateau.							**68.5**	**− 2.2**											**41**	**0.83**	**− 0.1**									**2.7**		
Reno	4,532	56	63	25.46	29.88	+ .04	66.3	− 0.7	93	23	83	37	30	49	44		50	38	43	0.96	+ 0.7	2	5,133	w.	37	w.	26	25	5	1	1.9	.....	.....
Tonopah	6,090	12	20	24.07	29.85	.....	69.6	.....	89	7	81	46	18	58	31		49	29	24	0.00	− 0.4	0	5,840	se.	26	nw.	13	26	5	0	1.5	.....	.....
Winnemucca	4,344	18	56	25.60	29.91	+ .03	66.7	− 4.1	96	23	86	36	31	48	48		50	37	41	0.13	0.0	2	4,052	sw.	35	sw.	2	22	5	4	2.5	.....	.....
Modena	5,479	10	43	24.64	29.87	+ .01	66.8	− 1.8	92	23	83	44	19	50	45		50	35	40	0.13	− 1.7	3	8,991	sw.	50	sw.	17	23	7	1	2.5	.....	.....
Salt Lake City	4,360	147	189	25.59	29.86	− .05	72.5	− 3.0	94	9	84	49	18	61	31		56	44	41	0.70	− 0.1	8	5,446	nw.	49	sw.	2	19	9	3	2.6	.....	.....
Durango	6,546	18	56	23.74	29.90	.00	64.5	− 1.8	88	9	80	44	8	49	44		51	42	56	2.57	+ 0.8	10	3,743	nw.	25	sw.	26	12	16	3	4.3	.....	.....
Grand Junction	4,602	43	51	25.37	29.89	− .01	74.4	− 1.7	97	26	88	54	8	60	38		55	42	39	1.35	+ 0.3	8	3,800	se.	23	nw.	15	19	9	3	3.3	.....	.....
Northern Plateau.							**66.0**	**− 4.4**											**52**	**1.49**	**+ 1.1**									**4.6**		
Baker	3,466	48	53	26.45	30.00	+ .05	59.9	− 5.0	88	24	74	31	30	46	40		50	43	60	1.69	+ 1.3	8	4,232	se.	21	se.	14	12	9	10	4.3	.....	.....
Boise	2,739	78	86	27.12	29.92	− .01	68.1	− 3.7	96	8	82	40	30	54	37		54	42	46	0.07	− 0.1	3	3,554	nw.	27	nw.	15	14	9	8	4.2	.....	.....
Lewiston	757	10	51	29.14	29.93	− .02	68.6	− 4.9	98	23	82	42	30	55	42		.....	.....	.....	1.25	+ 0.9	9	3,766	e.	48	w.	8	14	4	13	5.1	.....	.....
Pocatello	4,477	46	54	25.47	29.91	− .01	65.8	− 4.7	92	24	80	40	30	52	41		53	43	52	1.19	+ 0.6	7	4,910	se.	41	s.	26	15	11	5	3.9	.....	.....
Spokane	1,929	101	110	27.92	29.94	− .01	64.2	− 3.7	92	23	76	46	30	53	37		53	44	56	2.06	+ 1.6	10	4,366	sw.	25	sw.	24	9	10	12	5.8	.....	.....
Walla Walla	1,045	107	115	28.89	29.95	− .01	69.6	− 4.2	99	23	81	48	30	58	33		56	44	45	2.67	+ 2.2	8	5,106	sw.	39	ne.	14	16	7	8	4.0	.....	.....
North Pacific Coast Region.							**60.5**	**− 0.6**											**79**	**2.86**	**+ 2.3**									**5.7**		
North Head	211	11	56	29.80	30.02	− .01	58.0	+ 0.1	73	21	61	52	30	55	18		56	55	90	3.20	+ 2.6	11	9,740	nw.	54	se.	30	8	12	11	5.9	.....	.....
Port Crescent	259	8	53	29.77	30.04	+ .02	54.8	− 1.4	76	21	63	36	28	47	29		.....	.....	.....	2.59	+ 1.9	10	3,226	nw.	16	nw.	3	6	16	9	6.0	.....	.....
Seattle	205	215	250	29.89	30.02	+ .02	62.2	− 0.9	83	22	69	48	28	55	25		57	53	77	2.49	+ 2.0	11	5,389	s.	30	s.	16	7	9	15	6.4	.....	.....
Tacoma	213	113	120	29.79	30.01	− .01	61.8	− 1.2	85	21	70	45	28	53	32		56	52	74	3.44	+ 2.7	8	4,092	n.	26	sw.	31	6	12	13	6.1	.....	.....
Tatoosh Island	109	7	57	29.91	30.00	.00	55.6	+ 0.3	73	21	60	47	28	51	21		54	53	93	4.33	+ 2.2	12	7,563	s.	40	s.	30	8	11	12	5.9	.....	.....
Portland, Oreg.	153	68	106	29.83	29.99	− .02	65.8	− 0.1	93	7	75	50	29	56	33		59	54	71	3.39	+ 2.7	11	4,407	nw.	27	sw.	15	13	3	15	5.7	.....	.....
Roseburg	510	9	57	29.46	30.01	+ .01	65.1	− 1.1	94	21	78	40	29	52	39		57	52	68	0.59	+ 0.3	6	2,314	nw.	20	sw.	15	16	7	8	4.2	.....	.....
Middle Pacific Coast Region.							**64.3**	**− 0.6**											**64**	**0.01**	**0.0**									**3.4**		
Eureka	80	73	89	29.99	30.06	+ .06	57.2	+ 1.4	67	31	62	48	30	53	18		55	54	91	0.08	0.0	3	3,734	n.	25	n.	16	6	8	17	6.8	.....	.....
Mount Tamalpais	2,375	11	18	27.52	29.96	+ .03	64.4	− 1.5	87	6	72	46	29	57	20		53	44	51	0.01	0.0	0	13,141	nw.	75	nw.	28	28	3	0	0.8	.....	.....
Point Reyes Light	490	7	18	29.42	29.93	.....	54.7	+ 0.2	64	27	58	49	6	51	14		.....	.....	.....	0.00	.....	0	19,967	nw.	74	nw.	15	11	10	10	5.4	.....	.....
Red Bluff	332	50	56	29.52	29.86	.00	76.9	− 4.1	102	6	91	54	29	62	37		59	44	37	0.00	0.0	0	3,765	se.	24	n.	16	24	7	0	1.7	.....	.....
Sacramento	69	106	117	29.81	29.88	+ .03	71.6	− 0.5	101	6	87	50	30	56	39		60	54	60	0.00	0.0	0	6,214	s.	25	sw.	26	31	0	0	0.1	.....	.....
San Francisco	155	200	204	29.79	29.96	+ .04	59.9	+ 1.9	77	7	66	50	5	53	25		54	51	80	0.00	0.0	0	8,262	w.	34	sw.	7	20	8	3	2.6	.....	.....
San Jose	141	12	110	29.81	29.96	.....	65.1	− 1.6	90	7	79	44	30	51	40		.....	.....	.....	0.00	0.0	0	4,691	nw.	23	nw.	17	27	4	0	1.4	.....	.....
Southeast Farallon	30	9	17	29.96	29.98	.....	55.2	.....	63	26	57	50	3	53	10		.....	.....	.....	0.00	0.0	0	12,713	nw.	49	nw.	15	14	12	5	3.9	.....	.....
South Pacific Coast Region.							**69.1**	**− 1.4**											**66**	**0.06**	**+ 0.1**									**2.2**		
Fresno	330	62	70	29.52	29.86	+ .04	77.7	− 3.5	106	7	94	54	30	61	39		58	42	36	0.00	0.0	0	4,725	w.	16	nw.	8	31	0	0	0.1	.....	.....
Los Angeles	338	159	191	29.55	29.91	+ .03	69.2	+ 0.6	88	7	79	52	3	60	32		61	57	73	0.00	0.0	0	3,576	s.	15	s.	17	19	12	0	2.7	.....	.....
San Diego	87	94	102	29.83	29.92	+ .03	66.4	− 2.3	79	7	71	56	5	62	22		62	60	81	0.26	+ 0.3	2	4,377	sw.	18	nw.	14	19	11	1	3.3	.....	.....
San Luis Obispo	201	47	54	29.74	29.96	+ .02	63.2	− 0.3	94	6	76	46	31	50	45		54	50	72	0.00	0.0	0	3,440	nw.	24	nw.	29	23	6	2	2.6	.....	.....
West Indies.																																
San Juan	82	48	90	29.94	30.02	+ .05	81.0	.....	88	17	86	73	14	76	14		....	.....	.....	3.74	− 3.7	20	8,241	e.	31	s.	18	17	8	6	4.3		
Panama.																																
Ancon	92	6	69	.....	29.82	.....	80.2	.....	94	31	88	69	7	72	21		75	75	90	6.33	− 1.2	20	5,024	nw.	24	n.	18	1	14	16	7.3	.....	.....
Culebra	404	5	62	.....	29.84	.....	79.5	.....	92	8	87	69	12	72	19		74	73	92	12.88	+ 2.3	19	4,592	nw.	33	ne.	12	2	12	17	7.3	.....	.....
Colon	10	5	71	.....	29.85	.....	80.2	.....	89	9	84	72	7	76	14		76	75	87	9.87	− 5.1	20	6,892	n.	29	w.	19	1	18	12	6.8	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during August, 1912, at all stations furnished with self-registering gages.*

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.												
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Abilene, Tex.	9	8.35 a. m.	9.35 a. m.	0.78	9.06 a. m.	9.23 a. m.	0.09	0.09	0.35	0.66	0.69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	21–22	7.30 p. m.	D. N. a. m.	1.44	11.05 p. m.	11.39 p. m.	0.28	0.07	0.16	0.27	0.41	0.52	0.59	0.64	.....	.....	.....	.....	.....	.....	.....
Albany, N. Y.	26	12.29 p. m.	1.05 p. m.	0.83	12.29 p. m.	12.54 p. m.	0.00	0.12	0.39	0.52	0.61	0.82	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alpena, Mich.	9	.....	.....	1.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.49	.....	.....	.....
Amarillo, Tex.	4	9.50 p. m.	5.00 a. m.	0.90	10.12 p. m.	10.27 p. m.	0.04	0.21	0.32	0.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anniston, Ala.	8	.....	.....	1.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.42	.....	.....	.....
Asheville, N. C.	15	4.50 p. m.	5.20 p. m.	0.36	5.00 p. m.	5.08 p. m.	0.01	0.21	0.34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atlanta, Ga.	7	9.50 a. m.	11.25 a. m.	0.66	10.39 a. m.	11.05 a. m.	0.04	0.05	0.03	0.33	0.46	0.57	0.61	.....	.....	.....	.....	.....	.....	.....	.....
	9	5.08 p. m.	7.15 p. m.	0.88	5.50 p. m.	6.00 p. m.	0.04	0.22	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atlantic City, N. J.	17–18	11.20 p. m.	6.45 a. m.	1.95	3.32 a. m.	3.48 a. m.	0.87	0.12	0.32	0.54	0.56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	19	3.20 p. m.	4.04 p. m.	0.64	3.29 p. m.	3.46 p. m.	0.01	0.16	0.24	0.55	0.62	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Augusta, Ga.	8	12.58 p. m.	4.30 p. m.	2.24	1.13 p. m.	1.47 p. m.	0.04	0.06	0.19	0.37	0.63	0.88	1.00	1.05	.....	.....	.....	.....	.....	.....	.....
					2.41 p. m.	2.55 p. m.	1.35	0.35	0.59	0.66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	9	1.26 p. m.	2.40 p. m.	1.13	1.29 p. m.	2.19 p. m.	0.01	0.28	0.64	0.64	0.64	0.64	0.64	0.65	0.78	0.92	1.06	.....	.....	.....	.....
Do.	9	3.20 p. m.	4.30 p. m.	0.80	3.23 p. m.	3.42 p. m.	0.01	0.24	0.47	0.68	0.74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	25	2.40 p. m.	7.30 p. m.	0.57	3.13 p. m.	3.41 p. m.	0.01	0.13	0.23	0.32	0.36	0.44	0.50	.....	.....	.....	.....	.....	.....	.....	.....
Baker, Oreg.	3	10.10 a. m.	2.20 p. m.	0.57	10.21 a. m.	10.31 a. m.	0.01	0.23	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore, Md.	10	9.42 p. m.	10.20 p. m.	0.86	9.48 p. m.	10.05 p. m.	0.01	0.19	0.54	0.78	0.84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bentonville, Ark.	2	2.30 p. m.	3.35 p. m.	0.77	2.40 p. m.	3.07 p. m.	0.01	0.16	0.35	0.41	0.52	0.68	0.72	.....	.....	.....	.....	.....	.....	.....	.....
	21	7.35 a. m.	9.45 a. m.	0.70	8.10 a. m.	8.25 a. m.	0.01	0.15	0.36	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Binghamton, N. Y.	18	2.15 p. m.	2.45 p. m.	0.63	2.22 p. m.	2.38 p. m.	0.03	0.12	0.30	0.55	0.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	10	9.30 a. m.	4.30 p. m.	1.91	11.38 a. m.	12.35 p. m.	0.35	0.36	0.47	0.60	0.67	0.76	0.94	1.01	1.07	1.09	1.16	1.25	.....	.....	.....
Do.	21	8.30 a. m.	10.15 a. m.	1.23	8.56 a. m.	9.25 a. m.	0.02	0.08	0.51	0.74	0.91	1.05	1.18	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham, Ala.	8	3.15 a. m.	9.37 a. m.	2.82	7.01 a. m.	8.18 a. m.	0.96	0.06	0.11	0.25	0.43	0.60	0.86	1.03	1.16	1.30	1.39	1.43	1.86	.....	.....
Bismarck, N. Dak.	19	.....	.....	0.64	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.31	.....	.....	.....
Block Island, R. I.	11	9.18 a. m.	10.40 a. m.	0.55	9.20 a. m.	9.32 a. m.	T.	0.15	0.35	0.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boise, Idaho.	31	.....	.....	0.04	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.02	.....	.....	.....
Boston, Mass.	11	.....	.....	0.66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.42	.....	.....	.....
Buffalo, N. Y.	2	3.22 p. m.	5.05 p. m.	1.49	3.32 p. m.	4.17 p. m.	T.	0.19	0.59	0.72	0.82	0.94	1.11	1.19	1.27	1.38	.....	.....	.....	.....	.....
Burlington, Vt.	26	.....	.....	0.73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.49	.....	.....	.....
Cairo, Ill.	12	1.14 p. m.	4.25 p. m.	0.64	1.24 p. m.	1.41 p. m.	0.01	0.23	0.41	0.48	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canton, N. Y.	26	7.45 p. m.	9.30 p. m.	0.59	8.28 p. m.	8.39 p. m.	0.01	0.34	0.50	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charles City, Iowa.	31	9.00 p. m.	11.55 p. m.	0.86	9.13 p. m.	9.32 p. m.	0.09	0.15	0.42	0.50	0.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charleston, S. C.	16	11.35 a. m.	2.30 p. m.	0.77	11.55 a. m.	12.22 p. m.	0.02	0.13	0.44	0.53	0.61	0.67	0.70	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte, N. C.	25	.....	.....	0.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.37	.....	.....	.....
Chattanooga, Tenn.	17	12.09 p. m.	1.35 p. m.	2.34	12.25 p. m.	1.07 p. m.	0.02	0.25	0.48	0.78	1.23	1.46	1.80	2.10	2.22	2.27	.....	.....	.....	.....	.....
	22	1.45 a. m.	5.20 a. m.	2.98	2.09 a. m.	2.54 a. m.	0.04	0.51	0.71	0.78	0.84	1.04	1.33	1.84	2.30	2.46	.....	.....	.....	.....	.....
Cheyenne, Wyo.	18	5.35 p. m.	6.45 p. m.	0.62	6.16 p. m.	6.39 p. m.	0.07	0.18	0.40	0.43	0.47	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicago, Ill.	9	5.47 p. m.	8.34 p. m.	1.12	6.02 p. m.	6.42 p. m.	0.02	0.06	0.20	0.29	0.36	0.59	0.79	0.96	1.01	.....	.....	.....	.....	.....	.....
Cincinnati, Ohio.	9	10.25 a. m.	12.10 p. m.	1.35	11.13 a. m.	11.50 a. m.	0.07	0.20	0.55	0.75	0.80	0.83	0.91	1.07	1.17	.....	.....	.....	.....	.....	.....
Cleveland, Ohio.	20	8.40 p. m.	9.10 p. m.	0.72	8.43 p. m.	9.01 p. m.	0.01	0.22	0.36	0.59	0.68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	26	5.01 a. m.	5.56 a. m.	0.80	5.05 a. m.	5.34 a. m.	0.01	0.27	0.41	0.50	0.59	0.71	0.76	.....	.....	.....	.....	.....	.....	.....	.....
Columbia, Mo.	13	.....	.....	0.89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.68	.....	.....	.....
Columbia, S. C.	18	6.28 p. m.	7.04 p. m.	0.76	6.42 p. m.	7.03 p. m.	0.08	0.07	0.23	0.41	0.63	0.68	.....	.....	.....	.....	.....	.....	.....	.....	.....
	19	7.29 p. m.	8.55 p. m.	1.34	7.36 p. m.	8.36 p. m.	0.01	0.08	0.23	0.49	0.71	0.82	0.91	0.99	1.04	1.08	1.13	1.28	.....	.....	.....
Columbus, Ohio.	31	3.12 p. m.	4.22 p. m.	0.44	3.40 p. m.	3.50 p. m.	0.08	0.15	0.34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Concord, N. H.	1	.....	.....	0.82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.62	.....	.....	.....
Concordia, Kans.	14	2.58 a. m.	8.07 a. m.	0.58	3.00 a. m.	3.10 a. m.	0.01	0.23	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corpus Christi, Tex.	18	.....	.....	0.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.02	.....	.....	.....
Davenport, Iowa.	19	D. N. a. m.	11.58 a. m.	2.09	5.39 a. m.	6.08 a. m.	0.02	0.15	0.30	0.36	0.41	0.49	0.53	.....	.....	.....	.....	.....	.....	.....	.....
Dayton, Ohio.	28	8.18 p. m.	D. N. p. m.	2.47	8.29 p. m.	9.02 p. m.	0.01	0.05	0.12	0.22	0.35	0.41	0.53	0.56	.....	.....	.....	.....	.....	.....	.....
					10.07 p. m.	11.09 p. m.	0.77	0.10	0.33	0.34	0.38	0.46	0.58	0.66	0.71	0.88	1.17	1.66	1.70	.....	.....
Del Rio, Tex.	23	.....	.....	0.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.11	.....	.....	.....
Denver, Colo.	14	.....	.....	0.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Des Moines, Iowa.	17	.....	.....	0.73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.46	.....	.....	.....
Detroit, Mich.	19	D. N. a. m.	D. N. a. m.	0.44	12.52 a. m.	1.03 a. m.	0.01	0.08	0.36	0.41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Devils Lake, N. Dak.	8	.....	.....	0.34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	.....	.....
Dodge City, Kans.	7	6.10 p. m.	8.45 p. m.	2.59	7.15 p. m.	8.45 p. m.	0.06	0.05	0.10	0.22	0.38	0.63	0.86	1.09	1.27	1.36	1.50	1.86	2.47	.....	.....
	14–15	10.10 p. m.	D. N. a. m.	1.17	10.14 p. m.	10.54 p. m.	T.	0.11	0.32	0.42	0.49	0.56	0.61	0.64	0.66	.....	.....	.....	.....	.....	.....
Dubuque, Iowa.	18–19	6.52 p. m.	8.22 a. m.	5.23	7.16 p. m.	8.12 p. m.	0.19	0.10	0.22	0.41	0.58	0.76	1.00	1.42	1.71	1.82	1.85	1.94	.....	.....	.....
					9.06 p. m.	9.54 p. m.	2.31	0.20	0.49	0.56	0.60	0.65	0.69	0.79	0.92	1.05	1.08	.....	.....	.....	.....
Duluth, Minn.	30	.....	.....	0.67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.24	.....	.....	.....
Durango, Colo.	30	10.23 a. m.	11.24 a. m.	0.52	10.28 a. m.	10.43 a. m.	0.01	0.17	0.32	0.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eastport, Me.	23	3.50 p. m.	5.15 p. m.	0.79	4.19 p. m.	4.45 p. m.	0.07	0.11	0.33	0.48	0.55	0.65	0.67	.....	.....	.....	.....	.....	.....	.....	.....
Elkins, W. Va.	21	2.21 p. m.	5.02 p. m.	0.80	3.51 p. m.	4.20 p. m.	0.14	0.09	0.21	0.34	0.45	0.56	0.62	.....	.....	.....	.....	.....	.....	.....	.....
El Paso, Tex.	24	.....	.....	0.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.36	.....	.....	.....
Erie, Pa.	19	D. N. a. m.	7.00 a. m.	1.02	4.22 a. m.	4.55 a. m.	0.04	0.24	0.44	0.45	0.47	0.55	0.65	0.70	.....	.....	.....	.....	.....	.....	.....
	26	7.25 p. m.	8.55 p. m.	0.72	7.25 p. m.	7.42 p. m.	0.00	0.12	0.18	0.48	0.57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Escanaba, Mich.	8–9	10.15 p. m.	D. N. a. m.	0.89	3.11 a. m.	3.41 a. m.	0.17	0.08	0.26	0.43	0.53	0.59	0.69	.....	.....	.....	.....	.....	.....	.....	.....
	**31–1	8.30 p. m.	D. N. a. m.	1.09	9.54 p. m.	10.13 p. m.	0.01	0.13	0.34	0.45	0.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eureka, Cal.	31	.....	.....	0.04	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.04	.....	.....	.....
Evansville, Ind.	22	7.36 p. m.	8.35 p. m.	0.85	7.39 p. m.	8.04 p. m.	0.01	0.21	0.36	0.57	0.72	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....
Flagstaff, Ariz.	24	.....	.....	0.29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	(*)	.....	.....	.....
Fort Smith, Ark.	2	3.26 p. m.	4.45 p. m.	0.70	3.36 p. m.	4.00 p. m.	0.01	0.19	0.35	0.47	0.62	0.66	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Wayne, Ind.	17–18	11.15 p. m.	D. N. a. m.	1.73	11.15 p. m.	11.30 p. m.	0.00	0.19	0.44	0.51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
					1.07 a. m.	1.23 a. m.	0.73	0.17	0.39	0.58	0.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Worth, Tex.	1	7.42 a. m.	12.50 p. m.	1.34	8.36 a. m.	9.10 a. m.	0.05	0.07	0.20	0.47	0.77	1.10	1.18	1.21	.....	.....	.....	.....	.....	.....	.....
Do.	5–6	11.54 p. m.	7.35 a. m.	2.74	12.08 a. m.	1.24 a. m.	0.02	0.20	0.41	0.49	0.51	0.55	0.60	0.65	0.78	1.00	1.22	1.44	1.86	.....	.....
Do.	21–22	11.10 p. m.	5.50 a. m.	1.38	1.03 a. m.	1.32 a. m.	0.06	0.06	0.14	0.28	0.44	0.55	0.63	.....	.....	.....	.....	.....	.....	.....	.....
Fresno, Cal.	(‡)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.	14	D. N. a. m.	D. N. a. m.	0.57	3.24 a. m.	3.41 a. m.	0.02	0.23	0.38	0.51	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven, Mich.	19	.....	.....	0.55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Grand Junction, Colo.	15	.....	.....	0.76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Grand Rapids, Mich.	8–9	3.50 p. m.	5.55 a. m.	0.82	4.33 p. m.	4.39 p. m.	0.01	0.35	0.39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Green Bay, Wis.	17	.....	.....	0.70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.39	.....	.....	.....
Hannibal, Mo.	15	5.20 a. m.	12.25 p. m.	0.81	8.48 a. m.	9.05 a. m.	0.19	0.20	0.33	0.46	0.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	28	7.05 p. m.	D. N. p. m.	0.95	7.14 p. m.	7.31 p. m.	0.01	0.26	0.52	0.69	0.74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrisburg, Pa.	10	3.05 p. m.	6.12 p. m.	0.72	3.13 p. m.	3.39 p. m.	0.02	0.22	0.34	0.42	0.47	0.58	0.63	.....	.....	.....	.....	.....	.....	.....	.....
Hartford, Conn.	18	.....	.....	1.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.40	.....	.....	.....
Hatteras, N. C.	14	5.03 a. m.	5.35 a. m.	1.04	5.05 a. m.	5.23 a. m.	0.01	0.16	0.46	0.90	0.98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Havre, Mont.	18	.....	.....	0.58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.23	.....	.....	.....
Helena, Mont.	18	.....	.....	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.19	.....	.....	.....
Houghton, Mich.	24	.....	.....	0.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.42	.....	.....	.....
Houston, Tex.	31	11.26 a. m.	3.52 p. m.	1.46	3.17 p. m.	3.35 p. m.	0.96	0.15	0.31	0.44	0.49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Huron, S. Dak.	11	8.45 p. m.	D. N. p. m.	0.56	9.03 p. m.	9.17 p. m.	0.01	0.19	0.29	0.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Independence, Cal.	(‡)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis, Ind.	10	3.38 p. m.	4.30 p. m.	0.41	4.08 p. m.	4.16 p. m.	0.07	0.30	0.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iola, Kans.	14–15	11.10 p. m.	5.35 a. m.	2.68	11.19 p. m.	12.22 a. m.	0.03	0.25	0.56	0.84	1.13	1.25	1.34	1.46	1.59	1.68	1.73	2.02	2.08	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during August, 1912, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Jacksonville, Fla.	1	9.50 a.m.	10.45 a.m.	0.68	9.59 a.m.	10.14 a.m.	0.01	0.11	0.33	0.60											
Do.	6	11.43 a.m.	3.15 p.m.	0.94	11.43 a.m.	Noon.	0.00	0.34	0.53	0.63	0.65										
Do.	24	12.07 p.m.	12.48 p.m.	1.15	12.17 p.m.	12.34 p.m.	0.01	0.36	0.81	1.08	1.13										
Kalispell, Mont.	1			0.51														0 13			
Kansas City, Mo.	7	7.28 p.m.	9.20 p.m.	1.29	7.47 p.m.	8.47 p.m.	0.05	0.09	0.13	0.23	0.42	0.61	0.79	0.89	0.94	0 98	1.08	1.18			
Keokuk, Iowa.	20	6.45 a.m.	6.57 a.m.	0.33	6.45 a.m.	6.57 a.m.	0.00	0.15	0.30	0.33											
Key West, Fla.	27			0.40														0.40			
Knoxville, Tenn.	9	2.35 p.m.	3.06 p.m.	0.51	2.53 p.m.	2.59 p.m.	0.01	0.42	0.48												
	21	1.51 p.m.	3.18 p.m.	0.50	2.10 p.m.	2.19 p.m.	0.01	0.31	0.46												
La Crosse, Wis.	30			1.17														0.54			
Lander, Wyo.	17			0.24														0.12			
Lansing, Mich.	19			0.50														0.30			
La Salle, Ill.	19–20	6.50 p.m.	D.N.a.m.	0.83	10.45 p.m.	10.54 p.m.	0.44	0.26	0.36												
Lewiston, Idaho.	3			0.25														0.13			
Lexington, Ky.	9			0.53														0.26			
Lincoln, Nebr.	5	3.30 a.m.	6.35 a.m.	0.99	4.59 a.m.	5.39 a.m.	0.25	0.16	0.24	0.29	0.36	0.43	0.50	0.53	0.60						
	15–16	8.55 p.m.	8.15 a.m.	2.12	12.56 a.m.	1.16 a.m.	0.56	0.27	0.58	0.73	0.92										
Little Rock, Ark.	21	7.34 p.m.	D.N.p.m.	1.48	8.05 p.m.	8.57 p.m.	0.02	0.17	0.26	0.47	0.79	0.87	0.87	0.87	0.89	1.19	1.32	1.36			
	26	1.30 p.m.	2.40 p.m.	1.30	1.42 p.m.	2.20 p.m.	0.02	0.22	0.41	0.66	0.90	1.03	1.11	1.17	1.23						
Los Angeles, Cal.	(‡)																				
Louisville, Ky.	28–29	11.50 p.m.	D.N.a.m.	1.00	12.05 a.m.	12.27 a.m.	0.02	0.15	0.21	0.34	0.41	0.46									
Lynchburg, Va.	26	6.10 p.m.	6.45 p.m.	0.32	6.27 p.m.	6.37 p.m.	0.01	0.14	0.31												
Macon, Ga.	1	6.23 p.m.	7.05 p.m.	0.40	6.27 p.m.	6.37 p.m.	0.01	0.21	0.37												
Madison, Wis.	1			0.78														0.42			
Marquette, Mich.	9–10	12.01 a.m.	5.00 a.m.	2.57	7.46 a.m.	8.41 a.m.	0.38	0.06	0.11	0.13	0.17	0.20	0.26	0.44	0.54	0.58	0.75	0.83			
Memphis, Tenn.	26	11.22 a.m.	12.45 p.m.	0.55	11.31 a.m.	11.56 a.m.	0.02	0.13	0.28	0.34	0.42	0.51									
Meridian, Miss.	7	2.35 p.m.	5.35 p.m.	1.41	2.44 p.m.	2.58 p.m.	0.01	0.21	0.41	0.48											
					3.39 p.m.	4.06 p.m.	0.51	0.23	0.51	0.58	0.68	0.76	0.79								
Do.	10	3.42 p.m.	7.15 p.m.	0.76	3.46 p.m.	4.11 p.m.	0.01	0.06	0.32	0.39	0.55	0.62									
Miami, Fla.	13	8.05 p.m.	8.55 p.m.	0.55	8.19 p.m.	8.34 p.m.	0.01	0.06	0.15	0.53											
Do.	27	4.59 a.m.	5.30 a.m.	0.50	5.01 a.m.	5.15 a.m.	0.01	0.20	0.36	0.47											
Milwaukee, Wis.	30	7.00 a.m.	9.30 a.m.	0.58	8.13 a.m.	8.23 a.m.	0.03	0.08	0.30												
Minneapolis, Minn.	18	D.N.a.m.	D.N.a.m.	0.97	4.19 a.m.	4.39 a.m.	0.14	0.21	0.40	0.50	0.57										
	29–30	11.20 p.m.	D.N.a.m.	2.02	12.39 a.m.	1.59 a.m.	0.58	0.08	0.13	0.22	0.27	0.29	0.34	0.46	0.56	0.68	0.69	0.70	1.04		
Mobile, Ala.	21	3.07 p.m.	4.20 p.m.	1.80	3.07 p.m.	3.41 p.m.	0.00	0.21	0.56	0.86	1.16	1.55	1.71	1.77							
Do.	22	2.24 p.m.	6.25 p.m.	1.33	2.24 p.m.	2.45 p.m.	0.00	0.18	0.63	0.83	0.95	1.00									
Do.	23	12.18 p.m.	2.05 p.m.	1.62	12.21 p.m.	12.48 p.m.	0.01	0.16	0.48	0.77	1.11	1.38	1.44								
Do.	26	2.18 p.m.	3.50 p.m.	1.55	2.30 p.m.	2.50 p.m.	0.06	0.23	0.58	0.93	1.28										
Modena, Utah.	14			0.09														0.04			
Montgomery, Ala.	8	2.17 p.m.	4.40 p.m.	1.86	2.19 p.m.	3.20 p.m.	0.01	0.29	0.38	0.64	0.91	0.98	1.06	1.11	1.18	1.25	1.37	1.79	1.84		
	8	7.09 p.m.	9.55 p.m.	0.71	7.09 p.m.	7.33 p.m.	0.00	0.10	0.17	0.34	0.46	0.56									
Moorhead, Minn.	5	4.45 p.m.	6.35 p.m.	0.98	5.01 p.m.	5.17 p.m.	0.01	0.13	0.45	0.77	0.84										
	16	3.12 p.m.	1.00 a.m.	2.34	8.52 p.m.	10.50 p.m.	0.62	0.13	0.32	0.36	0.45	0.50	0.51	0.51	0.53	0.60	0.79	0.92	1.19	1.40	1.72
Mount Tamalpais, Cal.	(‡)																				
Mount Weather, Va.	–10	D.N.p.m.	D.N.a.m.	0.81	1.54 a.m.	2.18 a.m.	0.31	0.10	0.23	0.40	0.43										
Nantucket, Mass.	1			1.28														0.47			
Nashville, Tenn.	7			0.45														0.31			
New Haven, Conn.	11	D.N.a.m.	6.00 a.m.	1.06	5.08 a.m.	5.22 a.m.	0.44	0.22	0.44	0.56											
New Orleans, La.	15	10.50 a.m.	2.00 p.m.	0.68	11.02 a.m.	11.12 a.m.	0.03	0.27	0.46												
New York, N. Y.	19	7.22 p.m.	10.25 p.m.	0.91	9.00 p.m.	9.15 p.m.	0.15	0.06	0.42	0.67											
Norfolk, Va.	19			0.29														0.29			
Northfield, Vt.	12	D.N.a.m.	D.N.a.m.	0.42	1.16 a.m.	1.30 a.m.	0.03	0.14	0.30	0.37											
North Head, Wash.	16			1.47														0.23			
North Platte, Nebr.	2			0.66														0.33			
Notre Dame, Ind.	17–18	9.20 p.m.	D.N.a.m.	1.60	9.40 p.m.	10.15 p.m.	0.02	0.12	0.18	0.23	0.40	0.68	1.04	1.35							
Oklahoma, Okla.	8	D.N.a.m.	10.15 a.m.	2.19	2.13 a.m.	3.19 a.m.	0.01	0.09	0.35	0.62	0.90	1.15	1.24	1.28	1.39	1.51	1.59	1.79	2.01		
Omaha, Nebr.	11–12	11.45 p.m.	5.15 a.m.	1.92	11.50 p.m.	12.50 a.m.	0.01	0.11	0.22	0.28	0.37	0.42	0.46	0.51	0.59	0.77	0.84	1.01			
					3.58 a.m.	4.28 a.m.	1.07	0.08	0.20	0.36	0.56	0.66	0.72								
Oswego, N. Y.	26	7.42 p.m.	9.20 p.m.	0.63	7.49 p.m.	8.10 p.m.	0.01	0.12	0.22	0.39	0.46	0.48									
Palestine, Tex.	2			0.41														0.29			
Parkersburg, W. Va.	19	11.45 a.m.	12.10 p.m.	0.54	11.48 a.m.	12.04 p.m.	0.01	0.10	0.46	0.52	0.53										
Pensacola, Fla.	2	8.50 a.m.	12.05 p.m.	0.62	8.54 a.m.	9.05 a.m.	0.01	0.32	0.55	0.57											
Do.	3	6.05 a.m.	8.30 a.m.	0.71	6.25 a.m.	6.44 a.m.	0.02	0.09	0.27	0.49	0.54										
Do.	20	4.00 p.m.	4.50 p.m.	0.56	4.04 p.m.	4.20 p.m.	0.01	0.12	0.17	0.47	0.55										
Do.	25	10.40 a.m.	11.55 a.m.	1.37	10.44 a.m.	11.14 a.m.	0.02	0.05	0.32	0.72	1.06	1.22	1.33								
Peoria, Ill.	9			0.29														0.24			
Philadelphia, Pa.	18			1.24														0.51			
Phoenix, Ariz.	27			0.50														0.24			
Pierre, S. Dak.	18	8.30 p.m.	10.05 p.m.	0.82	8.35 p.m.	8.54 p.m.	T.	0.09	0.19	0.45	0.63										
	29	6.08 p.m.	7.55 p.m.	1.75	7.25 p.m.	7.40 p.m.	0.42	0.33	0.91	1.30											
Pittsburgh, Pa.	18	7.55 p.m.	8.45 p.m.	0.61	7.57 p.m.	8.18 p.m.	0.01	0.21	0.37	0.41	0.57	0.59									
Pocatello, Idaho.	1	9.05 p.m.	9.35 p.m.	0.31	9.05 p.m.	9.16 p.m.	0.00	0.11	0.30	0.31											
Point Reyes Light, Cal.	(‡)																				
Port Huron, Mich.	1	12.26 p.m.	1.20 p.m.	0.46	1.33 p.m.	1.41 p.m.	0.01	0.17	0.43												
Portland, Me.	1			0.63														0.30			
Portland, Oreg.	16			0.83														0.22			
Providence, R. I.	11			1.01														0.38			
Pueblo, Colo.	20	5.32 p.m.	9.50 p.m.	0.67	6.58 p.m.	7.18 p.m.	0.02	0.19	0.38	0.48	0.54										
Raleigh, N. C.	26	1.38 p.m.	3.25 p.m.	1.16	1.56 p.m.	2.12 p.m.	0.02	0.38	0.82	1.07	1.10										
Rapid City, S. Dak.	18	D.N.a.m.	D.N.a.m.	0.42	3.14 a.m.	3.52 a.m.	0.08	0.16	0.32												
Red Bluff, Cal.	(‡)																				
Reno, Nev.	2	1.19 p.m.	2.30 p.m.	0.93	1.25 p.m.	1.48 p.m.	0.01	0.13	0.43	0.64	0.76	0.84									
Richmond, Va.	20			0.50														0.43†			
Rochester, N. Y.	26			0.41														0.39			
Roseburg, Oreg.	17			0.16														0.06			
Roswell, N. Mex.	30	12.55 p.m.	4.55 p.m.	1.69	1.36 p.m.	2.07 p.m.	0.07	0.16	0.36	0.73	1.06	1.30	1.43	1.48							
Sacramento, Cal.	(‡)																				
St. Joseph, Mo.	15	D.N.a.m.	6.20 a.m.	1.42	4.34 a.m.	5.33 a.m.	0.23	0.05	0.20	0.31	0.40	0.49	0.59	0.74	0.85	0.88	1.03	1.18			
St. Louis, Mo.	12			0.47														0.36			
St. Paul, Minn.	29–30	11.10 p.m.	4.45 a.m.	1.78	1.09 a.m.	1.29 a.m.	0.51	0.12	0.27	0.38	0.55										
Salt Lake City, Utah.	18			0.28														0.21			
San Antonio, Tex.	16			0.22														0.22			
San Diego, Cal.	29			0.11														0.06			
Sand Key, Fla.	18	6.55 a.m.	7.30 a.m.	0.39	7.17 a.m.	7.24 a.m.	0.06	0.24	0.33												
Sandusky, Ohio.	21			0.92														0.67			
San Francisco, Cal.	(‡)																				
San Jose, Cal.	(‡)																				
San Luis Obispo, Cal.	(‡)																				
Santa Fe, N. Mex.	21			0.38														0.17			

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during August, 1912, at all stations furnished with self-registering gages*—Continued.

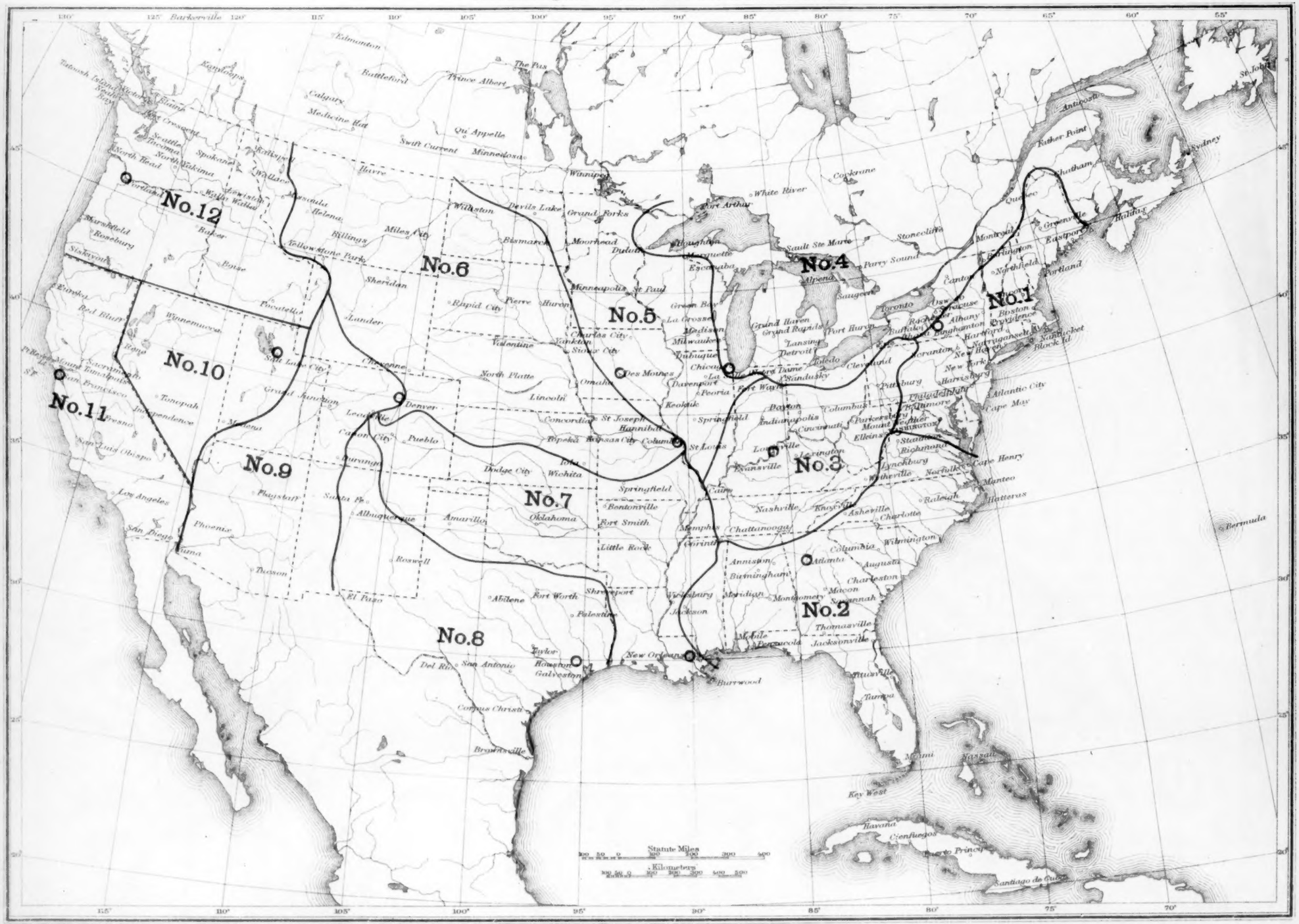
Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Sault Ste. Marie, Mich.	10	1.55 p. m.	4.15 p. m.	1.20	2.06 p. m.	2.36 p. m.	0.01	0.21	0.46	0.60	0.78	0.88	0.95	.....	.....	.....	.....	.....	.....	.....	.....
Savannah, Ga.	4	3.17 p. m.	7.12 p. m.	2.64	3.21 p. m.	4.44 p. m.	0.01	0.16	0.44	0.62	0.68	0.76	0.84	0.94	1.16	1.34	1.50	1.89	2.35	2.45	.....
Do.	10	D. N. a. m.	D. N. a. m.	0.59	1.22 a. m.	1.36 a. m.	0.01	0.25	0.45	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	23	2.20 p. m.	5.25 p. m.	0.81	2.20 p. m.	2.34 p. m.	0.00	0.16	0.44	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	27	3.29 p. m.	6.05 p. m.	0.98	4.10 p. m.	4.49 p. m.	0.08	0.05	0.17	0.46	0.60	0.71	0.76	0.81	0.86	.....	.....	.....	.....	.....	.....
Scranton, Pa.	14	12.40 p. m.	3.00 p. m.	1.76	1.20 p. m.	2.47 p. m.	0.14	0.20	0.39	0.40	0.40	0.40	0.40	0.43	0.64	0.64	0.71	1.09	1.50	1.62	.....
Seattle, Wash.	8	.....	.....	0.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Sheridan, Wyo.	17	.....	.....	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.45	.....	.....	.....
Shreveport, La.	2	6.00 p. m.	9.30 p. m.	1.01	6.08 p. m.	6.36 p. m.	0.02	0.09	0.40	0.61	0.79	0.85	0.92	.....	.....	.....	.....	.....	.....	.....	.....
Do.	3	7.15 p. m.	7.40 p. m.	0.80	7.19 p. m.	7.34 p. m.	0.01	0.20	0.56	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.	9	2.30 a. m.	12.20 p. m.	4.84	6.11 a. m.	6.36 a. m.	0.44	0.08	0.23	0.82	1.16	1.25	.....	.....	.....	.....	.....	.....	.....	.....	.....
					7.07 a. m.	8.12 a. m.	1.79	0.12	0.26	0.37	0.59	0.81	1.04	1.21	1.40	1.62	1.83	2.14	2.29	.....	.....
Do.	9–10	11.50 p. m.	11.30 a. m.	2.55	12.02 a. m.	12.26 a. m.	0.04	0.08	0.21	0.24	0.53	0.75	.....	.....	.....	.....	.....	.....	.....	.....	.....
					4.32 a. m.	5.07 a. m.	0.94	0.23	0.36	0.40	0.49	0.62	0.70	0.79	.....	.....	.....	.....	.....	.....	.....
Sioux City, Iowa.	16–17	6.10 p. m.	4.00 a. m.	4.09	10.34 p. m.	12 mid.	0.68	0.12	0.25	0.33	0.33	0.37	0.49	0.60	0.70	0.81	0.87	0.92	1.40	1.61	.....
					1.14 a. m.	2.20 a. m.	2.38	0.16	0.41	0.74	0.78	0.85	0.95	1.01	1.17	1.22	1.25	1.51	1.67	.....	.....
Southeast Farallon, Cal.	(‡)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spokane, Wash.	31	.....	.....	1.16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.28	.....	.....	.....
Springfield, Ill.	8	D. N. a. m.	D. N. a. m.	0.99	1.52 a. m.	2.10 a. m.	0.05	0.18	0.42	0.70	0.86	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield, Mo.	21	D. N. a. m.	8.00 a. m.	1.06	4.16 a. m.	4.32 a. m.	0.32	0.05	0.19	0.38	0.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Syracuse, N. Y.	21	2.15 p. m.	2.42 p. m.	0.41	2.23 p. m.	2.34 p. m.	0.02	0.16	0.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tacoma, Wash.	8	.....	.....	1.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.39	.....	.....	.....
Tampa, Fla.	5	4.25 p. m.	5.00 p. m.	0.52	4.37 p. m.	4.53 p. m.	0.03	0.11	0.25	0.46	0.49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	14	1.18 p. m.	2.25 p. m.	1.25	1.23 p. m.	1.51 p. m.	0.01	0.12	0.41	0.78	0.84	1.04	1.19	.....	.....	.....	.....	.....	.....	.....	.....
Tatoosh Island, Wash.	9	.....	.....	1.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	.....	.....
Taylor, Tex.	22	.....	.....	0.48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.38	.....	.....	.....
Thomasville, Ga.	2	1.12 p. m.	2.40 p. m.	0.89	1.12 p. m.	1.37 p. m.	0.00	0.30	0.38	0.40	0.67	0.84	.....	.....	.....	.....	.....	.....	.....	.....	.....
	21	6.55 p. m.	9.35 p. m.	0.72	6.58 p. m.	7.21 p. m.	0.01	0.13	0.27	0.43	0.56	0.61	.....	.....	.....	.....	.....	.....	.....	.....	.....
Titusville, Fla.	6–7	.....	.....	1.99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	(*)	.....	.....	.....
Toledo, Ohio.	18–19	10.30 p. m.	4.25 a. m.	0.84	11.54 p. m.	12.08 a. m.	0.18	0.06	0.33	0.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tonopah, Nev.	(‡)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Topeka, Kans.	15	2.32 a. m.	8.55 a. m.	0.78	2.36 a. m.	3.03 a. m.	0.02	0.11	0.22	0.27	0.40	0.51	0.55	.....	.....	.....	.....	.....	.....	.....	.....
Valentine, Nebr.	5	.....	.....	0.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.35	.....	.....	.....
Vicksburg, Miss.	18	2.43 p. m.	7.25 p. m.	0.90	3.56 p. m.	4.25 p. m.	0.01	0.18	0.28	0.42	0.51	0.64	0.71	.....	.....	.....	.....	.....	.....	.....	.....
	26	2.40 p. m.	7.00 p. m.	0.82	3.35 p. m.	4.08 p. m.	0.07	0.08	0.16	0.32	0.39	0.46	0.51	0.56	.....	.....	.....	.....	.....	.....	.....
Walla Walla, Wash.	15	.....	.....	0.27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.24	.....	.....	.....
Washington, D. C.	10	10.15 a. m.	11.55 a. m.	0.50	10.49 a. m.	11.04 a. m.	0.04	0.09	0.28	0.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wichita, Kans.	6	6.58 a. m.	9.00 a. m.	0.65	7.00 a. m.	7.15 a. m.	0.01	0.21	0.31	0.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Williston, N. Dak.	4	.....	.....	0.70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.39	.....	.....	.....
Wilmington, N. C.	21	1.55 a. m.	D. N. a. m.	0.79	1.57 a. m.	2.32 a. m.	0.01	0.10	0.30	0.36	0.42	0.45	0.63	0.73	.....	.....	.....	.....	.....	.....	.....
Winnemucca, Nev.	1	.....	.....	0.11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.05	.....	.....	.....
Wytheville, Va.	22	.....	.....	0.26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.26	.....	.....	.....
Yankton, S. Dak.	6	4.30 p. m.	7.10 p. m.	0.71	4.30 p. m.	4.53 p. m.	0.00	0.17	0.30	0.38	0.49	0.57	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellowstone Park, Wyo.	26	.....	.....	0.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.35	.....	.....	.....	.....

* Self-register not working. † Record incomplete. ‡ No precipitation occurred during month. ** Aug. 31–Sept. 1.

TABLE III.—*Data furnished by the Canadian Meteorological Service, January, 1912.*

Stations.	Pressure.			Temperature.						Precipitation.		
	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Total snowfall.
	Ins.	*Ins.*	*Ins.*	*°F.*	*°F.*	*°F.*	*°F.*	*°F.*	*°F.*	*Ins.*	*Ins.*	*Ins.*
St. Johns, N. F.	29.76	29.89	−.07	57.1	−2.7	63.8	50.4	73	40	4.38	+0.30	.....
Sydney, C. B. I.	29.88	29.92	−.03	61.2	−2.1	68.6	53.7	80	40	2.76	−0.86	.....
Halifax, N. S.	29.83	29.93	−.03	61.9	−1.7	70.0	53.8	82	44	3.72	−0.63	.....
Grand Manan, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yarmouth, N. S.	29.88	29.95	−.02	59.2	−1.0	65.9	52.4	74	43	2.65	−1.36	.....
Charlottetown, P. E. I.	29.86	29.90	−.04	62.5	−1.8	69.1	55.9	81	47	2.42	−1.32	.....
Chatham, N. B.	29.88	29.90	−.03	60.5	−2.7	69.4	51.6	85	42	6.41	+2.37	.....
Father Point, Que.	29.84	29.86	−.05	53.4	−2.2	59.9	47.0	72	38	4.36	+1.31	.....
Quebec, Que.	29.58	29.90	−.03	59.7	−3.4	68.2	51.3	78	42	9.58	+5.75	.....
Montreal, Que.	29.71	29.91	−.04	63.3	−3.1	70.5	56.2	80	46	3.93	+0.36	.....
Stonecliffe, Ont.	29.29	29.89	−.07	59.9	−3.3	69.9	49.9	84	37	3.38	+0.43	.....
Ottawa, Ont.	29.66	29.98	+.02	61.9	−3.0	69.2	54.3	79	42	5.23	+2.20	.....
Kingston, Ont.	29.63	29.94	−.04	63.4	−3.6	71.3	55.6	85	38	5.62	+3.24	.....
Toronto, Ont.	29.56	29.94	−.05	63.9	−2.1	72.3	55.5	85	42	3.97	+1.21	.....
White River, Ont.	28.62	29.92	−.04	54.9	−1.5	65.1	44.8	78	28	4.26	+0.96	.....
Port Stanley, Ont.	29.30	29.94	−.06	63.6	−2.3	71.8	55.4	81	42	6.56	+4.14	.....
Southampton, Ont.	29.24	.....	.....	61.5	−2.3	68.6	54.5	84	40	3.58	+1.33	.....
Parry Sound, Ont.	29.24	29.92	−.06	61.8	−1.7	71.1	52.6	84	35	2.24	−0.48	.....
Port Arthur, Ont.	29.25	29.96	.00	57.5	−2.0	66.2	48.8	79	36	2.54	−0.21	.....
Winnipeg, Man.	29.12	29.94	.00	60.2	−3.2	70.0	50.5	82	39	1.64	−1.03	.....
Minnedosa, Man.	28.13	29.92	−.02	59.0	−0.4	68.2	49.7	80	37	2.42	+0.32	.....
Qu'Appelle, Sask.	27.66	29.88	−.05	59.6	−1.9	69.0	50.3	78	38	1.95	+0.31	.....
Medicine Hat, Alberta	27.62	28.86	−.06	65.8	+0.1	79.7	51.9	93	37	1.58	−0.09	.....
Swift Current, Sask.	27.37	29.90	−.03	61.8	−2.2	72.1	51.5	84	38	2.48	+0.57	.....
Calgary, Alberta	26.37	29.84	−.07	57.9	−1.5	69.0	46.8	82	30	2.75	+0.61	.....
Banff, Alberta	25.36	29.88	−.03	53.0	−3.3	64.5	41.4	79	32	3.94	+1.41	.....
Edmonton, Alberta	27.60	29.85	−.07	60.4	+1.6	70.7	50.1	81	35	4.41	+2.28	.....
Prince Albert, Sask.	28.31	29.85	−.07	59.2	+0.3	69.5	49.0	81	39	2.75	+0.60	.....
Battleford, Sask.	28.15	29.87	−.04	61.8	−0.8	71.6	52.0	85	38	2.74	+0.38	.....
Kamloops, B. C.	28.60	29.85	−.06	64.4	−4.2	75.3	53.5	87	43	2.09	+1.00	.....
Victoria, B. C.	29.88	29.97	−.04	59.8	+1.1	68.3	51.4	82	41	2.26	+1.66	.....
Barkerville, B. C.	25.67	29.94	+.04	51.0	−5.3	59.7	42.2	73	32	4.24	+1.14	.....
Dawson, Yukon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton, Bermuda	29.97	30.13	+.03	77.8	−1.8	83.1	72.5	86	67	7.76	+1.68	.....

Climatological Districts of the United States.



106 Climatological Sections of the United States.



Chart I. Hydrographs of Several Principal Rivers, August, 1912.

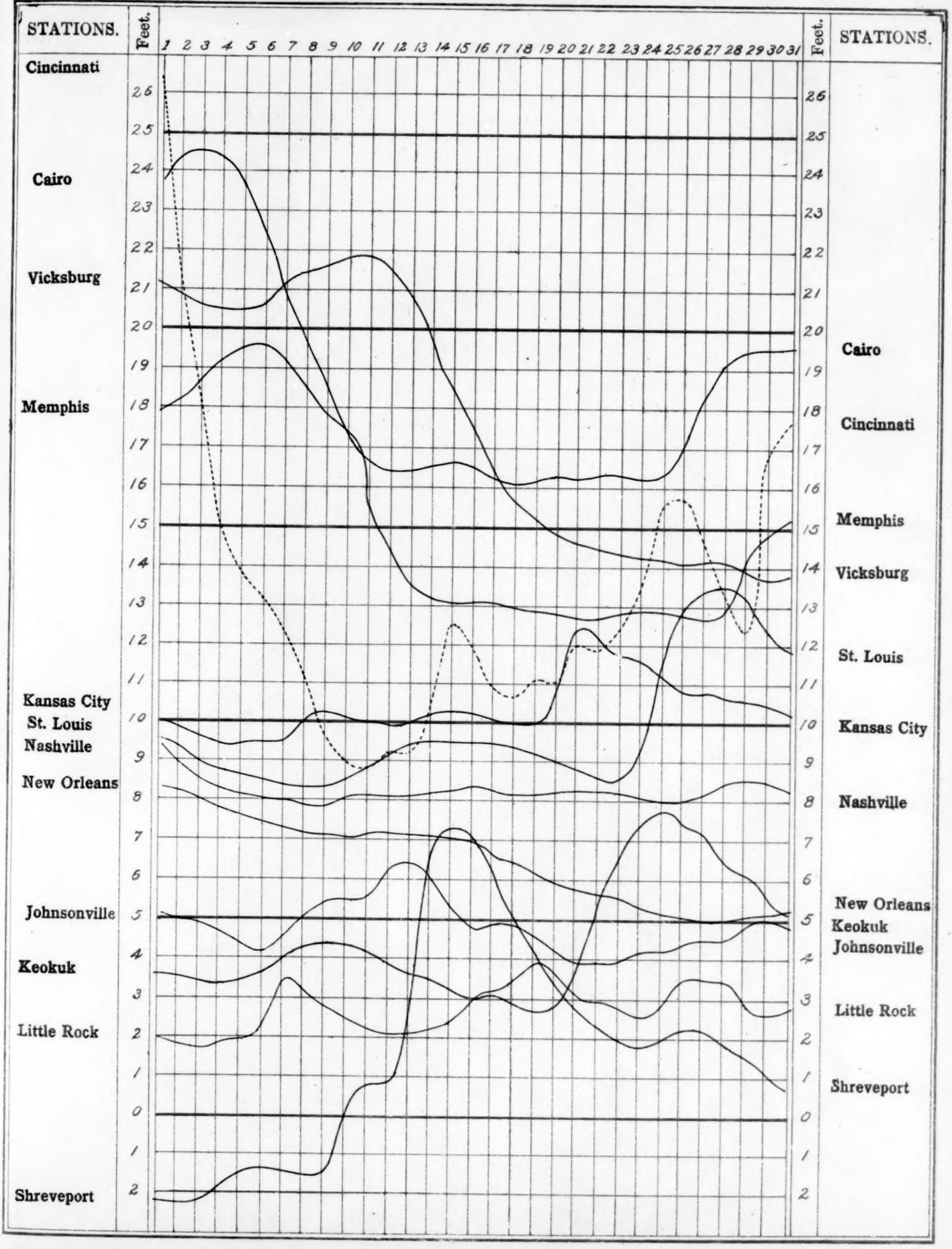


Chart II. Tracks of Centers of High Areas, August, 1912.

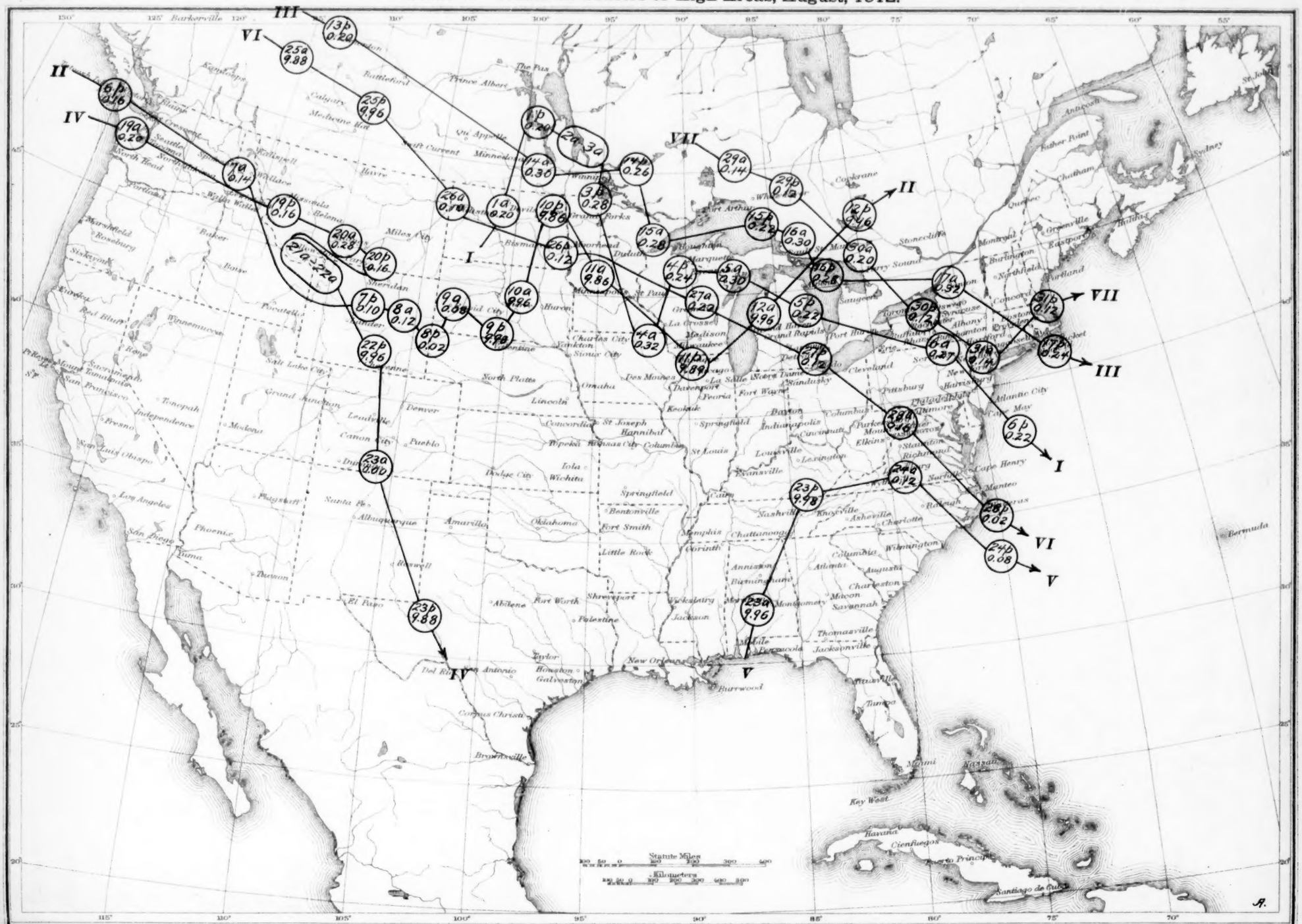


Chart III. Tracks of Centers of Low Areas, August, 1912.

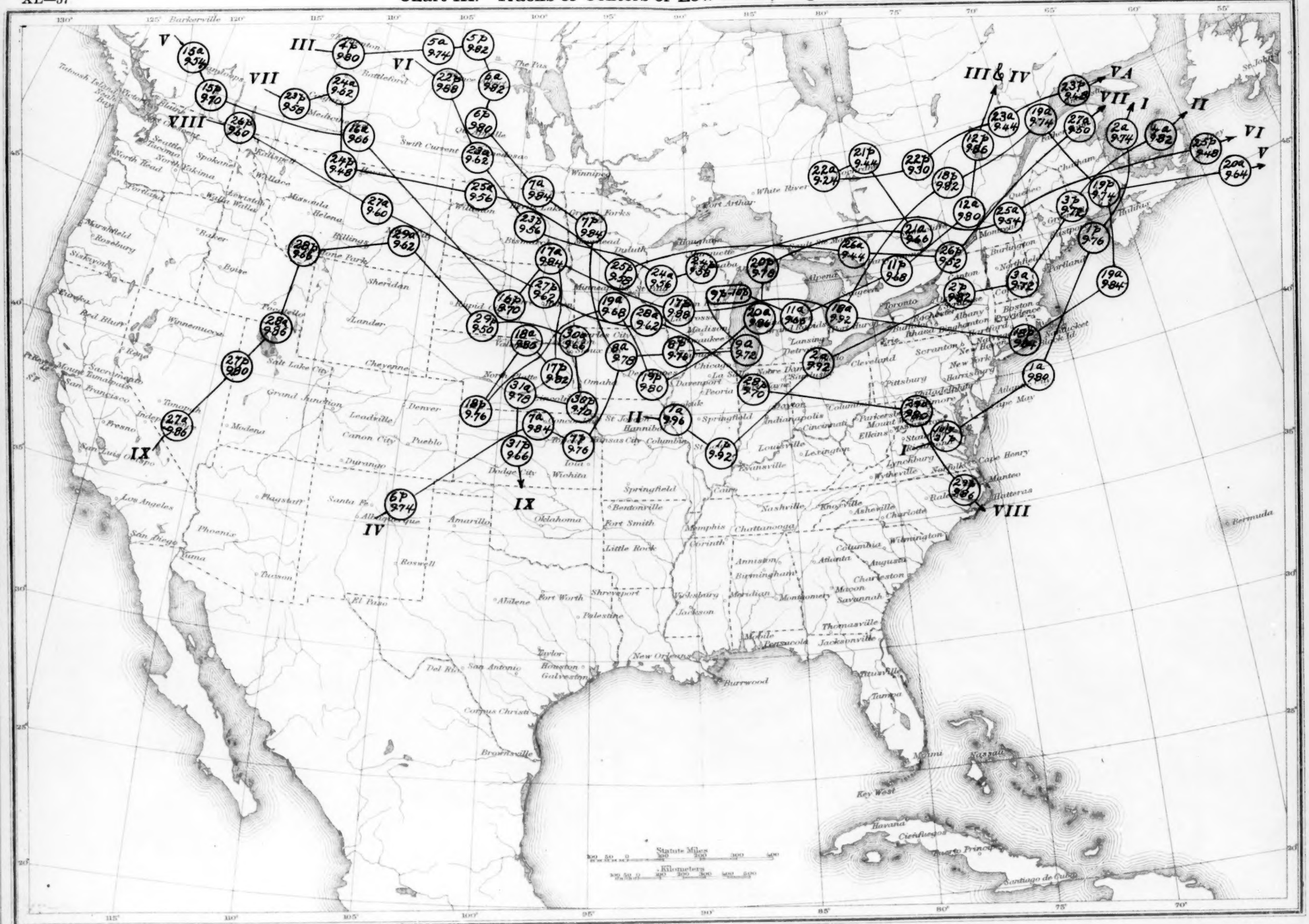


Chart IV. Departure of the Mean Temperature from the Normal, August, 1912.

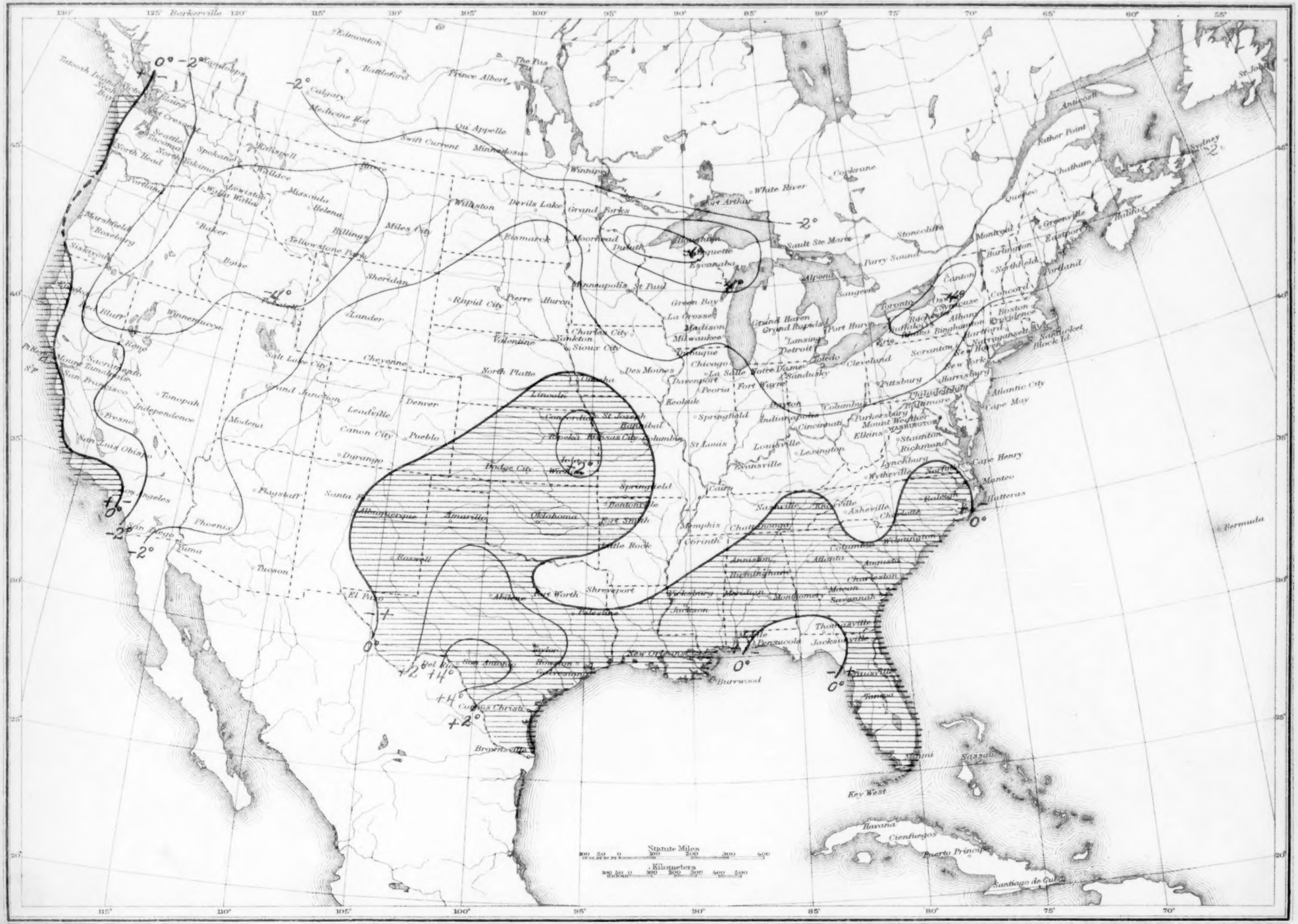


Chart V. Total Precipitation, August, 1912.

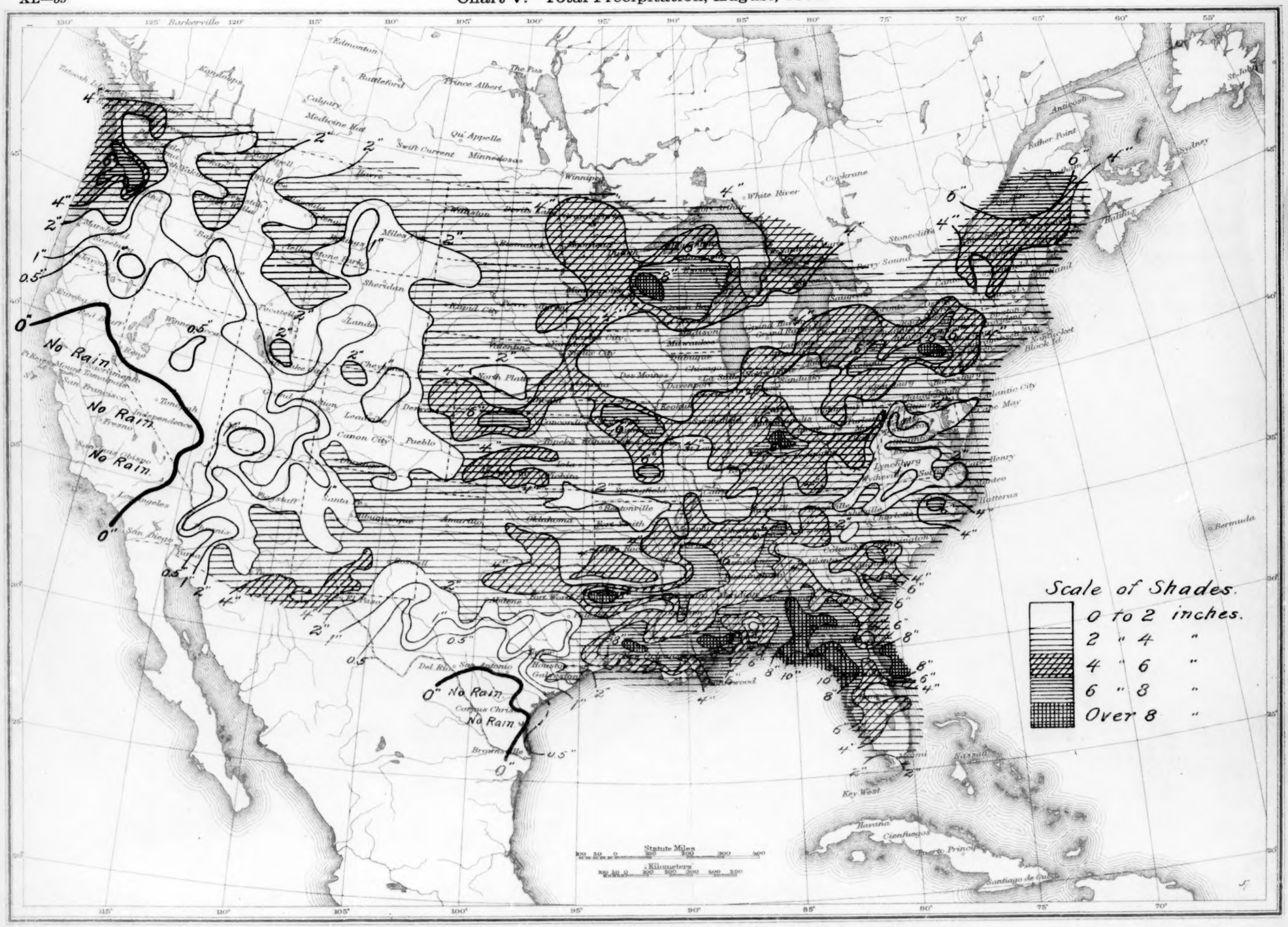


Chart VI. Percentage of Clear Sky between Sunrise and Sunset, August, 1912.

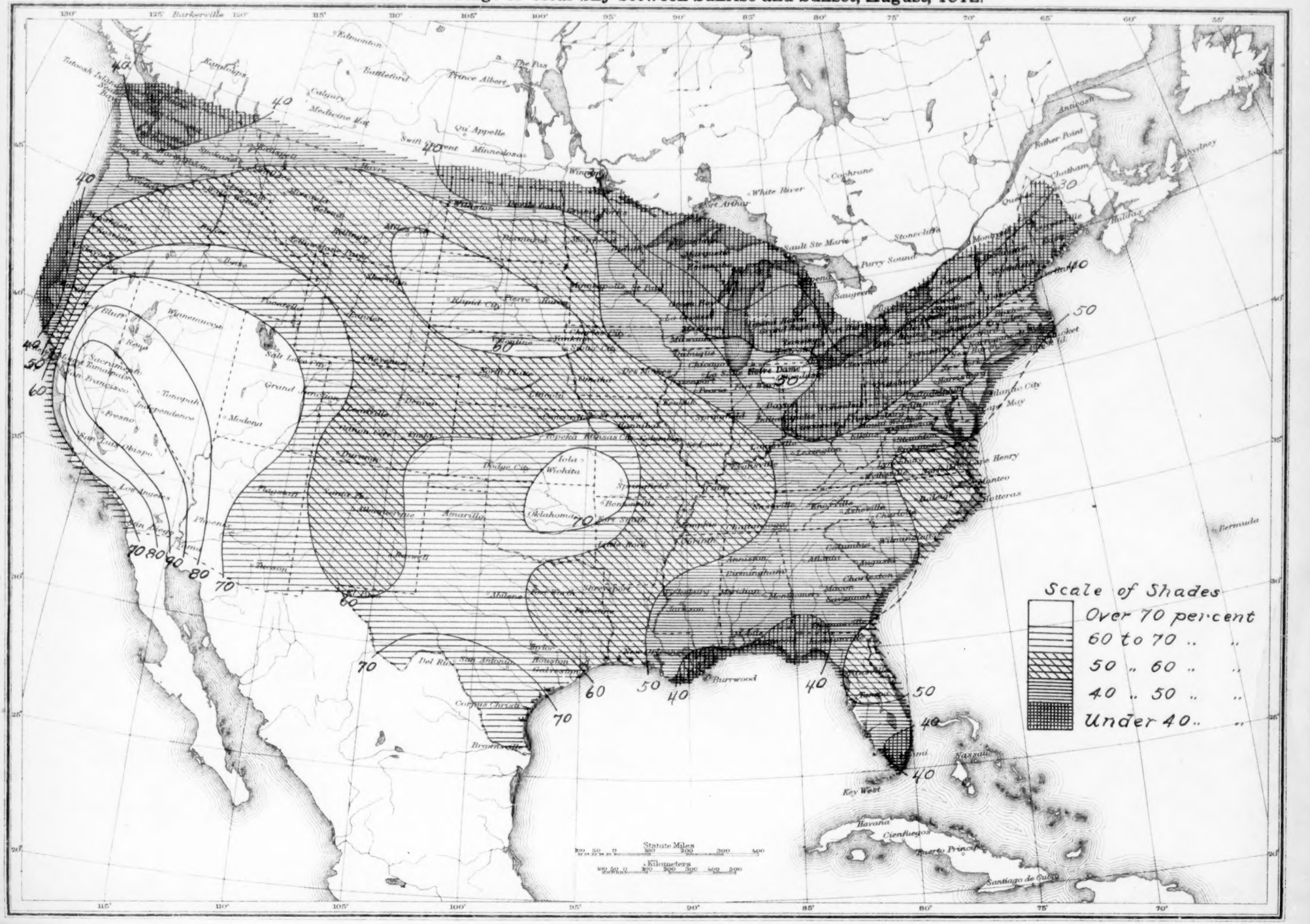


Chart VII. Isobars and Isotherms at Sea Level; Prevailing Winds, August, 1912.

